

BRITAIN'S BEST-SELLING DIGITAL CULTURE MAGAZINE

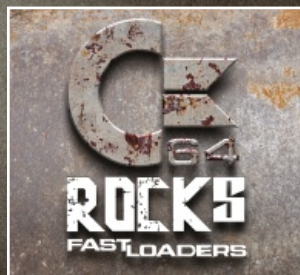
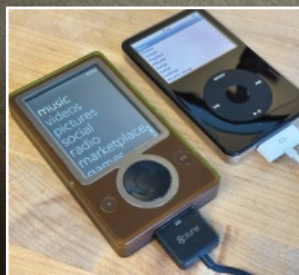
PIXEL ADDICT

£6.50 ■ 2023 ■ ISSUE 13



PLUS

- ▶ ZUNE MP3 PLAYER & APPLE IPOD
- ▶ C64 INSPIRED MUSIC ALBUM
- ▶ SUMO DIGITAL ACADEMY: ZOOL REDIMENSIONED
- ▶ N64 GAMES, WIN A COPY OF XENOCRISIS





PAUL
paul@addict.media

Best C64 music track? My pick sometimes changes depending on my mood, but *Turbo Outrun* is amazing. It has sampled digitised speech, along with the soundtrack using fantastic synths and catchy drum beats.
Have you ever tried coding? Yes... if we include *Shoot 'Em Up Construction Kit!* However, my attempts were truly awful and I soon deleted my "work".
Your perfect Summer's day: Reading the latest copy of *Pixel Addict* down the pub!



ANDREW
andrew@addict.media

Best C64 music track? I don't really have one, but I'm very impressed by what the SID chip is capable of.
Have you ever tried coding? I dabbled in BASIC back in the day, but my more recent(ish!) experience was with Java development which I had to use in my previous job.
Your perfect Summer's day: A bike ride in the mountains with friends, then onto a barcade for lunch! Preferably involving a bacon sandwich and a lightgun.



DUNCAN
duncan@addict.media

Best C64 music track? I've never owned a C64 but my current phone ringtone is part of a track called *Albino 4* by Jason Page and Mark "TDK" Knight.
Have you ever tried coding? Yes, I have tried to program on the Amstrad CPC, as everyone did. I once made a text/graphic adventure. I also programmed my scientific calculator to help with maths stuff.
Your perfect Summer's day: Putting my floppy disks in the fridge in alphabetical order.



GARETH
gareth@addict.media

Best C64 music track? I still have a soft spot for the *Ghost 'n Goblins* soundtrack. I love chiptune versions of *Frankie Goes To Hollywood* too.
Have you ever tried coding? It's part of my day job to use JavaScript and Python, but I still want to make something for an old system. Dare I say Assembler!
Your perfect Summer's day: Pool or sea, BBQ, shade and a place to play some games when it gets too hot.



ALAN
alan@addict.media

Best C64 music track? I didn't have a Commodore 64 growing up. I moved straight from the Vic-20 to an Amiga. On the 'mig, Allister Brimble was (and still is) a genius!
Have you ever tried coding? I used to dabble with BASIC and would change variables in Vic-20 games to make them more interesting.
Your perfect Summer's day: Sitting inside playing Sega Dreamcast games of course! What else is there to do?!



JOHN
john@addict.media

Best C64 music track? CRL and Nuwave's demoscene release of *Tubular Bells*. The developers created a wonderful SID version of a brilliant album and added visuals alongside too!
Have you ever tried coding? On my Spectrum, I created a program to listen to the microphone input from the tape deck and show visuals in time to the music.
Your perfect Summer's day: Summer's evenings are best, with a cold one and a sci-fi film.

EDITORIAL

Welcome to a new issue of *Pixel Addict*. Number 13; unlucky for some, but not our readers! To start with, I want to say thank you to those of you who have bought one of our new magazine binders. We're hoping to offer more *PA* merchandise soon, let us know what you'd like to see.

So, what do we have in Issue 13? Well, our cover feature sees John McDermott paying homage to the Commodore Plus/4. Despite it being an iconic computer, I tend to find that whenever Commodore is mentioned in a magazine the coverage is usually for the Amiga or C64. John felt it was important to speak to Bil Herd who was one of the main engineers behind the machine, especially as it will soon turn 40 years old! Bil discusses some of his memories and challenges from manufacturing, right through to marketing the computer. We also take a brief look at a few choice Plus/4 games.

Huxley goes back a few years and takes another look at an iPod rival, the Zune from Microsoft. It seems crazy that during the mid-to-late 2000s we viewed these types of portable audio players as having almost unlimited storage! Although, I suppose in the year 2000 I was still using a Sony Discman, which was extremely fiddly - especially if I was running for a bus and needed to change the CD!

I also chat to the guys from Sumo Digital Academy within these pages, the team who were behind *Zool Redimensioned* (which I review on page 43). Mike Pittaro takes an in-depth look at N64 game *Xeno Crisis* from Bitmap Bureau, who have also been kind enough to offer a copy of the game as a competition prize on page 39.

We also have a new writer making his debut, Chris McAuley. Chris is a jack of all trades when it comes to geek culture. He has been involved with several Dracula and Dr. Who stories. This issue he discusses some of his favourite Terminator games.

Finally, look out for our regular ongoing features, we hope you enjoy them. Keep using those old computers and speak to you soon.

- Paul Monaghan (Editor)

- Editor Paul Monaghan • Publishing Producer Jonah Naylor
- Community Editor Duncan Styles • Features Editor Andrew Siddall
- Creative Content Editor & Cover Artwork Gareth Qally
- Games Editor Alan Grapes • Staff Writer John McDermott
- Art Director Josh Kelly • Advertising Manager Hannah Naylor

"The *Pixel Addict* team would like to thank all of our contributors and readers, this publication would not be possible without you! We are also extremely grateful for the ongoing help and support we receive from our sponsors and fellow addicts over at *Amiga Addict* magazine."



The Commodore Plus/4
with Bil Herd (Page 29)



Zune MP3 player &
Apple iPod (Page 17)



WWW.ADDICT.MEDIA : FACEBOOK.COM/COMPUTINGMAGAZINE : TWITTER.COM/PIXELADDICT_MAG

Welcome to Pixel Addict magazine!
Ver1.3 -- Year 2023

MAIN MENU

- | | |
|--------------------------------|-------------------------------|
| 2. The Addicts | 29. Commodore Plus/4 |
| 4. On The Wire | (with Bil Herd) |
| 6. Your Points Of View | 34. Plus/4 Top 5 Games |
| 8. Pixels 'N' Popcorn: | 36. MYST |
| Prince Of Persia | 38. What Was Once Old, Is New |
| 10. BBC Micro In 2023 & Beyond | Again: N64 |
| 14. Templeman's Treasures: | 40. Homebrew Heroes |
| Thomson T07 | 43. Zool Redimensioned |
| 15. Subscribe To Pixel Addict | 44. Sumo's Next Superstars |
| 17. Zune & iPod Music Players | 47. Almost Famous... |
| 21. Format Gaming Event Update | 48. Terminator Video Games |
| 22. The Story Of My Master | 49. PA Back Issues |
| 24. So You Want To Buy A PC | 50. SSX Tricky |
| (Part 4) | 52. Prince Of Persia Guide |
| 26. Fastloaders - C64 Rocks | 54. Tonka Gobots |
| 27. Pixel Addict Binders | 57. Pixel Heaven Preamble |

Power

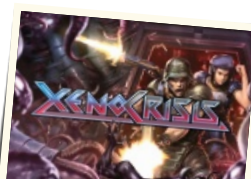
PIXEL ADDICT



Zool Redimensioned
& Sumo (Page 43)



C64 Rocks album
(Page 26)



N64 & win a copy of
Xenocrisis (Page 38)

Pixel Addict is an independent publication. Its publisher (Simulant Systems Ltd) has no official affiliation with any of the computer platforms, consoles, software or games covered in this magazine. The views expressed within these pages are those of the individual writers' only, and are not the opinions held by Pixel Addict magazine or its publishers. Pixel Addict © all rights reserved.

We take great care to ensure that what we publish is accurate, but cannot be liable for any mistakes or misprints. No part of this publication may be reproduced in any form without explicit permission.

PUBLISHED BY

© 2023.
ALL RIGHTS
RESERVED.



A GRAND (OPENING) DAY OUT

Back in Issue 10 we covered the soft launch of the North West Computer Museum (NWCN). Following feedback from visitors, they made revisions before the grand opening on 3rd June 2023. *Pixel Addict* was in attendance, witnessing presentations from museum owner Joe Kay, building manager Jo Platt and finally guest of honour, Professor Steve Furber.



Professor Furber was a principal designer of the BBC Micro, and also developed the ARM 32-bit RISC microprocessor whilst working at Acorn Computers. He shared a few words about his career and told anecdotes about how the movie *Micro Men* differed from real-life events.



Then it was time to cut the ribbon and officially open the museum. The venue hosted a strong turnout and showcased a fantastic range of computers. As well as arcade cabinets, VR sets and reference literature - including *Pixel Addict* which was available in the gift shop! Anyone who wants to visit can get all the details at: www.nwcomputermuseum.org.uk

- The Latest News For Ageing Tech Fans

AN EVER EXPANDING LIBRARY

A recent Evercade showcase from Blaze Entertainment highlighted the next wave of upcoming console cartridges which will be available soon for the system. The main standouts were two *Duke Nukem* cartridge collections. The first cart will feature remastered versions of the originals, *Duke Nukem 1 & 2*, as well as the iconic *Duke 3D*. On the other cart you'll be able to find *Land of the Babes*, *Duke Nukem Advance* and *Time to Kill*. There's still a lot of love for these games, as proven by the limited edition *Duke Nukem Atomic Edition* Evercade VS console selling out moments after it went on sale for pre-order! Other new carts announced include *Sunsoft Collection 1* (containing *Mr. Gimmick* and *Aero The Acro-Bat*), *Piko Collection 3*, *The Sydney Hunter Collection* and *Delphine Software Collection*. Find out more at: www.evercade.co.uk

FLASHING BACK

A follow-up to Delphine Software's *Flashback* will be arriving on modern platforms in November. *Flashback 2* picks up where its 1992 predecessor left off, with a storyline based around Conrad and the Morphs. Further details at: www.microids.com/game-flashback-2/

RADIOHEAD SURPRISES

It's not everyday the worlds of the Nintendo 64 and the band Radiohead come together. YouTuber and musician on4word has recreated the classic 1997 album *OK Computer* in full. Aptly named *OK Nintendo 64*, it has been made with N64 soundfonts (so you may recognise a few snippets such as the *Mario Kart 64* starting beeps used in the album's opening track *Airbag*). Check out the Bandcamp listing here: <https://on4word.bandcamp.com/album/ok-nintendo-64>



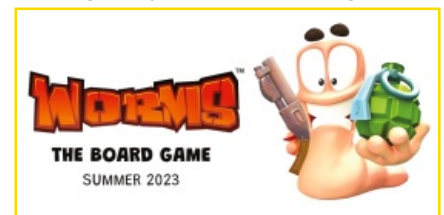
APPLE'S NEW VISION

Apple know how to get tongues wagging! Last month they unveiled their latest piece of tech - the Apple Vision

Pro. Technology headsets have come a long way in recent years, however Apple want to bring a wider digital world right to you, going far beyond VR gaming. Whether for work or play, the Vision Pro allows access to documents, photos and movies. The reported two hour battery life could be an issue - but you can always plug it into the mains just like we had to do with the Sega Game Gear...

BOARD OF WORMS?

Team 17 have announced a partnership with Mantic Games to bring *Worms* to the world of board games! Mantic aren't strangers to big brand gaming adaptations, with *The Walking Dead* and *Hellboy* amid previous products. A Kickstarter is due to launch in August ready for a 2024 release. This will be the start of the build up to the 30th anniversary of *Worms* celebrations in 2025. Follow this link to ensure you are notified when the campaign starts: www.kickstarter.com/projects/manticgames/worms-the-board-game



FIGHT FOR YOUR RIGHT

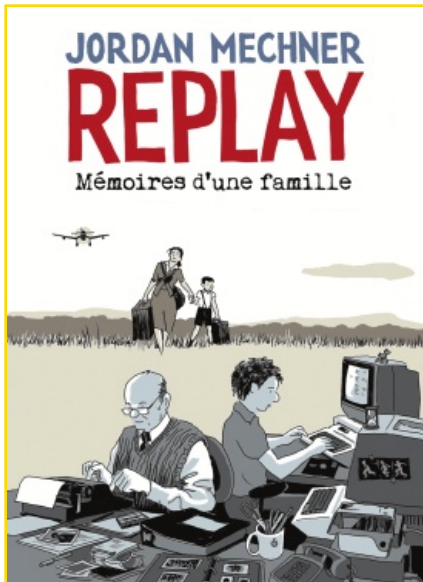
With scrolling beat 'em ups currently being popular, we're excited to see a new *Double Dragon* game due at the end of July. *Double Dragon Gaiden: Rise Of The Dragons* will be available for most modern gaming platforms. Choose from nine characters - including the usual Jimmy and Billy Lee) - as you take on waves of enemy gang members causing havoc in the city. We're loving the pixel art style of this and we'll bring a full review soon.

PRESERVATION DELIGHTS

We all know the Internet Archive can be a treasure trove of computing related delights, but now an important historical interview has been added from a show called *The Thinking Machine* which was recorded in 1992. The radio interview features Apple co-founder Steve Wozniak and the late Bob Bishop (co-founder of Apple's R&D division). Thanks to Brian Picchi for digitising the original audio, and to Resource Central for making it available. So, sit down in a comfy chair, make a cup of tea and listen to these two fascinating computing icons: www.archive.org/details/the-thinking-machine-bishop-woz-interview

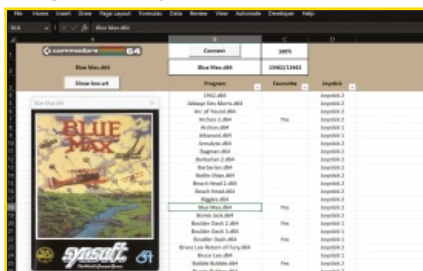
A PERSONAL TALE

Prince Of Persia creator Jordan Mechner has just released a new book titled *Replay*, which recounts his own family's social histories. Mechner states, "*Replay* is a personal graphic memoir of three generations - interweaving my youth and career making videogames through the 1980s and 90s, my father's odyssey as a child refugee in Nazi-occupied France, and my grandfather's experience as a teenage Austrian conscript on the Russian front of World War I." You can buy the book in French currently, an English version is due out in March 2024.



SPREADSHEETS ARE COOL

Autodesk Instructables website user, RaspberryPioneer has published a project which allows software to be loaded onto a Commodore 64 or Vic 20 via a Microsoft Excel spreadsheet! Selecting files from the sheet itself, there is also the facility to switch between the C64 and Vic 20. The full step by step guide (which works with several microcontrollers) can be found here: www.instructables.com/Load-Commodore-Computer-Programs-Using-MS-Excel/



SWITCH ADDITIONS

The Nintendo Switch Online service likes to keep classic gamers waiting. Thankfully, their most recent batch of games are worth the wait. The biggest title is *Harvest Moon* for the Super Nintendo, the farming sim which was released late in the console's life. Alongside this is *Kirby Tilt 'N' Tumble*, a topdown action puzzler which uses tilt controls from the Switch or a compatible controller. Other new titles include *Blaster Master: Enemy Below* (GBA) and *Mystery Tower* (Famicom/NES).

HACKING OBSCURE HARDWARE

For readers who've previously played hacked versions of Doom on a toaster, fridge LCD display or some other bit of obscure kit, this month we have one of our favourite ports yet! The latest incarnation is *Doom Teletext*, which can be played using a TV remote control! To find out how to get this running on your own CRT television, see the project's GitHub page: www.github.com/lukneu/doom-teletext



And as if that wasn't enough, we have another bit of crazy hackable kit for those with an inquisitive disposition. YouTuber Taki Udon posted a video last month of a hack to allow emulators to be sideloaded onto an Android-based calculator, the \$10 GHLBD! The video demonstrates the 8-bit titles *RoboCop 3*, *StarTropics* and *Metroid II: Return of Samus* all running well, before moving to 16 and 32-bit examples. A cheap way to create a handheld games console

for sure, but how far things have come since keying "5318008" into a Casio and turning it upside down for entertainment! Details of the hack are available via: www.pixel.addict.media/GHLBD



A BIT SPECIAL

Work continues on *Sonic GX* for 8-bit Amstrad Plus hardware and the GX4000 console. We bring breaking news at time of going to print from the developers Condense, who have revealed a new teaser of the Special Stage. So far, it looks incredible! Check out the video here: www.pixel.addict.media/GXspecial



DATES FOR YOUR DIARY

Know of any cool events? Let us know!

NOTTINGHAM VIDEO GAME EXPO

22nd July 2023, Nottingham

NVGE returns to a new venue at The Belgrave Rooms. Rare games studio panel talks are now confirmed with Kev Bayliss, David Wise, Paul Machacek and Estelle Ellis. See: www.nottsvge.com

BRING 'N' BYTE

Sunday 13th August 2023, Cambridge

If you're looking to buy or sell vintage hardware, software or accessories - this is the place to be! See details via: www.pixel.addict.media/bnb2023

TIMELESS GAMING CONVENTION

Wednesday 16th August 2023, Bury

As previewed in our last issue this event is held at Arcade Club in Bury, featuring panel talks, games competitions and access to 100s of arcade machines! We'll be at the event as being part of a panel, as well as selling mags and merch. Find updates at: www.timelessgaming.co.uk

OXFORD GAMING MARKET

23rd September 2023, Oxford

Replay Events' next games market

returns to the South, held at The King's Centre. There will be plenty of traders and a chance for early bird tickets. More info: www.oxfordgamingmarket.com

PLAY EXPO BLACKPOOL 2023

7th & 8th October 2023, Blackpool

Another event Pixel Addict will be exhibiting at, please come and say hi! One of longest running games events will be held again at Norbreck Hotel in Blackpool. Expect talks, arcade games, stalls and more. Updates are found here: www.playexpoblackpool.com

LEEDS COMIC-CON

15th October 2023, Leeds

The Royal Armouries will host Unleashed Events' largescale pop culture show, this year entitled Star Wars Unleashed. Without a Trekkie in sight, may the Force be with you! Reserve tickets via: www.pixel.addict.media/starwarscon

EGX 2023

12th-15th October 2023, London

The biggest gaming show in the UK is a little later than usual. However, this may mean there is a chance to see and play some of the biggest games to close out 2023. Tickets: www.egx.net



Your POINTS of VIEW

What's your opinion?
Send letters to pixel@addict.media

This issue Gareth reviewed *C64 Rocks* from FastLoaders. With some classic tracks it got us thinking about other game music. So which game music gets your foot tapping?

TWITTER

@Amiga_Square

Harlequin's soundtrack by Barry Leitch is one of my lifelong faves, along with *Apidya* by Chris Huelsbeck, *Fire & Ice* by Jason Page, *Pinball Dreams* by Olof Gustafsson, *Yo! Joe!* by Michael Bialas, and *The Chaos Engine* by Richard Joseph and Joi. Top OSTs all!

@loudscotsbloke

C64 *The Last Ninja*!! Fantastic soundtrack both during the game and when loading levels! So atmospheric. Instant memory jogger! Also Psygnosis' *Agony* on the Amiga. That piano!! That tree!! If anyone shows me a screenshot of that opening screen, the music is instantly in my head! Such a great tune.

@Huxley_D

There is SO MUCH good music across all of gaming, but two that I was recently talking about as all-time greats are: *Final Fantasy VIII* (not the most beloved in the FF series, but OMG what a soundtrack) *Chrono Cross* (oft-overlooked game with an incredible soundtrack!)

@DastardlyJabby

Apidya. A stunning soundtrack from Chris Huelsbeck.

@thegamecurators

Castle of Illusion, *Last Resort*, *Persona 4&5*, *Thunder Force IV*, *Silent Hill*, *Sonic*, *FFX*, *Layer Section*, *MSR*, *FEZ*, *Skies of Arcadia*, *Viewpoint*, *Untitled Goose Game*, *Space Channel 5*, *A Short Hike*, *Gradius III*, *Atelier Ayesha*, *Chrono Cross*, *Gleylancer*, *NIGHTS*, *Out Run*, *Sonic CD* (Ed. - "Just a few then!")

@dannyleemorris

The whole *Final Fantasy VII* soundtrack! If I have to pick faves... 'Prelude' and 'Still More Fighting' - the boss theme. The fairytale genius of Grant Kirkhope's *Banjo-Kazooie*, particularly 'Treasure Trove Cove' and 'Witch's Lair'. 'Mute City' from *F-Zero*... there are just so many!

FACEBOOK

Steve Erickson

The Bitmap Brothers pretty much took

everything to the next level when it came to game music. *Megablast* by Bomb the Bass as the intro music to *Xenon II* was a standout.

Dylan Raj

Oh man, how much time do you have? *The Streets of Rage 2* soundtrack is king but I've been listening to the *Sonic Mania* and *Sonic Frontiers* soundtracks lately in the car.

Paul Bridger

Project X by Allister Brimble in the 90s when dance and rave music was part of the era and to have that for a game on the Amiga back then was special I think. (*Dunc* - "Both title tracks are fantastic!")

Paul Rand

C64 *Rambo*.

Frank O'Connor

All Rob Hubbard and Martin Galway soundtracks - especially *Commando* and *Arkanoid* respectively.

Andrew Siddall

Turrican 2 title music.

Sean Tagg

A few that spring to mind are in my playlist - *Super Castlevania 4* - Stage 4, *Final Fight CD* - Metro City Subway and *Strider Hiryu* - Roaring

Dave Bradley

Back in the day, I had a soft spot for the music of classic Spectrum games: *Fairlight* (1985) and *Rana Rama* (1987).

A few years later, we're talking *Monkey Island* (1990) and *Monkey Island II: LeChuck's Revenge* (1991) on the Amiga/PC. I could listen to those syncopated tunes all day.

PC games in the 1990s: a shout-out to *DOOM* (1993) - when the music kicks in on that first level I feel instantly at



We challenge you not to hum along to *Outrun's* soundtrack.



Banjo Kazooie is another Rare masterpiece in all areas of the game.

home, years later.

And let's also salute the theme tune to original *Deus Ex* (2000).

It's a little later, but one of my favourite soundtracks of all time is *Dragon Age: Origins* (2009).

Brian Heaps

Spellbound, *One Man and His Droid*, *Lightforce* and *Shockway Rider* C64.

Khristian Rainford

So many to pick, I'd say *DreamWeb* and *Dune: Spice Opera* had some great music and OSTs released that got me into writing my own music. *Loaded*, *Unreal Tournament* were superb, *Lightforce* had a great track on the C64. Definitely some of my favourites.

Faith Johnson

Tony Hawk Pro Skater 2. Played almost daily on Spotify. Remember ripping the PC CD-ROM to my hard drive back in the day. "Lights out! Guerrilla radio!"

Kevin Keogh

Wipeout soundtrack was very good. (*Dunc* - "Oi Sony! Bring back *Wipeout*!")

Marc Jowett

The Killing Game Show and *Skweek* for Atari ST.



Rob Hubbard's *Lightforce* score has a lot of fans.

Always talking?
...try listening

THIS WEEK IN RETRO



up to date news
for out of date tech

Listen on
Apple Podcasts

Listen on
Spotify

Listen on
Podbean

Listen on
Overcast

LISTEN ON
STITCHER



Find us: www.youtube.com/ThisWeekInRetro & twir.podbean.com



PIXELS 'N' POPCORN

- From video games to the big screen

Film: *Prince Of Persia: The Sands Of Time*

Released: 2010

Director: Mike Newell

Starring: Jake Gyllenhaal, Gemma Arterton, Ben Kingsley, Alfred Molina, Richard Coyle, Toby Kebbell, Ronald Pickup

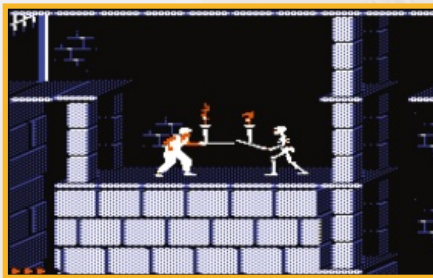
When Hollywood began making movies based on video games during the 1990s, games designers had already been drawing inspiration from Hollywood for quite some time. It was in the early 80s that the first film licences started appearing on consoles and in arcades, and as the decade progressed there were various attempts at making games more cinematic.

Dragon's Lair, released in 1983, proved it was possible for a game to have movie-quality animated visuals, albeit at the expense of severely limiting the player's agency. Far more successful gameplay-wise was 1989's *Prince Of Persia*, originally published by Broderbund for the Apple II, which married satisfyingly complex 2D platforming with strikingly realistic character animation. The latter was accomplished via rotoscoping; creator Jordan Mechner videoed his brother performing various actions (running, jumping, etc), and then used the footage as reference for the sprites. He also referenced swashbuckler films for the sword fighting animations.

Prince Of Persia was a hit and went on to



Even the typeface used for the film's title, as seen on the promotional posters and the DVD cover, is strangely staid. Again, something a mite more characterful wouldn't have hurt. (The trailers featured an altogether more eye-catching logo, curiously.)



Fantastical elements have always been a key part of the Prince Of Persia formula. The very first game, seen here in its original Apple II incarnation, saw the hero battling animate skeletons and, somewhat infamously, an evil reflection of himself that escaped from a magic mirror.

be ported to a multitude of other formats. Today it's recognised as the first ever cinematic platformer, paving the way for numerous games in a similar vein (like *Another World* and, more recently, *Inside* and *Little Nightmares*), and it got two sequels before the franchise was rebooted by new owners Ubisoft with *Prince Of Persia: The Sands Of Time*, released in 2003.

This was a major highlight for the series, deftly blending acrobatic 3D puzzle-platforming with vigorous sword-biffery, and introducing some chucklesome time-manipulation mechanics to help you defeat enemies and redeem mistakes. It also upped the filmic aspects of the proceedings, with atmospheric cutscenes, lots of elaborate set pieces and the titular hero narrating everything as one big flashback.

Mechner helped with the design and wrote the script for *Sands Of Time*, and on release the game was widely praised not only for being delightful to play, but for its splendid story. So when, in 2004, Jerry Bruckheimer's production company



Battling a band of sand-zombies in the Windows version of Sands Of Time.

picked up the rights for a *Sands Of Time* movie to be distributed by Disney, it seemed to bode well for the project when Mechner got the dual roles of scriptwriter and executive producer.

Unfortunately, on its eventual release in 2010, the film suffered the same fate that had befallen almost every other video game movie preceding it, receiving a metaphorical scimitar to the trachea from critics and failing to meet box office expectations. But was it truly deserving of such a fate? Let us twist the conk of time and discover the truth for ourselves.

The Plot Of The Game

In 9AD Persia, en route to visit the Sultan of Azad, King Sharaman is manipulated into attacking a Maharaja's palace where he appropriates a giant hourglass containing The Sands Of Time. Meanwhile, his son (whose name we never learn) loots a magic dagger with time-twisting powers. An evil vizier tricks the Prince into unleashing the Sands upon Azad's stronghold, transforming nearly everyone else into monsters. It thus falls to the Prince, with help from the Maharaja's daughter Farah, to undo the disaster and



Prince Dastan (Jake Gyllenhaal) unleashes the Dagger Of Time's magical powers.

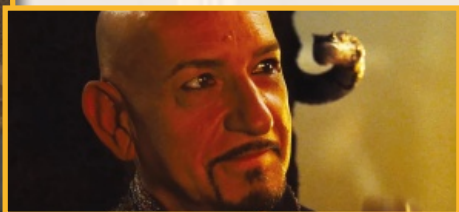


By Matthew Smith

@Amiga_Square

@amigasquared

soundcloud.com/matthewsmith2



Ben Kingsley as Nizam. He's a baddie, surprisingly.

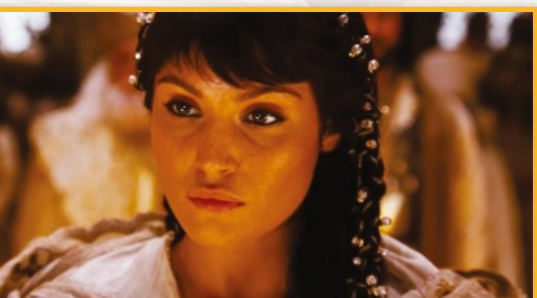
keep the Sands from destroying the world.

The Plot Of The Film

In ancient Persia, King Sharaman (Ronald Pickup) adopts a street urchin named Dastan after witnessing an act of heroism on the youngster's part. A decade and a half later, the king's biological sons Prince Tus (Richard Coyle) and Prince Garsiv (Toby Kebbell) are manipulated into attacking the holy city of Alamut, and during the siege Prince Dastan (Jake Gyllenhaal) steals a dagger which, we eventually learn, has the power to reverse time by up to one minute. Shortly thereafter the king is killed by a poisoned cloak (yes, really), and Dastan is framed for his murder. Escaping the palace with Tamina (Gemma Arterton), the frosty Princess of Alamut, the Prince must prove his innocence, unravel a dastardly plot to seize control of the throne and keep the mysterious Sands Of Time from destroying the world.

Production History

Disney had big plans for *Prince Of Persia: The Sands Of Time*. It was intended to be the first in a series of action fantasy adventures, following in the footsteps of the *Pirates Of The Caribbean* movies (also produced by Jerry Bruckheimer), and thus it was an extremely big production. It had a budget of somewhere between \$150m and \$200m, and a solid director in Mike Newell (whose previous credits included *Four Weddings And A Funeral* and *Harry Potter And The Goblet Of Fire*). Its cast was packed with



Gemma Arterton as Princess Tamina. Her character arc largely matches that of Farah from the game, so one wonders why she ended up with a different name.

accomplished names, and it had a theme song composed and performed by Alanis Morissette. It also had a ton of tie-in merchandise, including action figures, a graphic novel prequel and even a range of *Prince Of Persia* Lego sets.

The only thing the film didn't get, ultimately, were the box office returns Disney wanted. Despite lacklustre reviews it performed respectably, grossing \$335m worldwide, which at the time made it the most successful video game movie ever (overtaking *Lara Croft: Tomb Raider*, the previous record holder). However, when marketing costs were factored into the equation, it didn't make anything like as much money as the studio execs had anticipated. So what went wrong?

The Screening Room

That's a tricky question to answer, because it's honestly not a bad film. The story, while different from that of the game, is smartly told. Gyllenhaal and Arterton are likeable leads. The whole cast performs well, in fact; Alfred Molina is particularly memorable as eccentric wide boy Sheik Amar, and Ben Kingsley is predictably excellent as the king's duplicitous brother Nizam. There are energetic sword fights and stunts aplenty, and the visual effects are terrific, especially when time-shifting shenanigans are afoot.

I think the main problems are style and pacing. In its video game incarnation, *Sands Of Time* was a colourful fairy tale; here the visuals are more muted as in the game's sequels, *Warrior Within* and *Two Thrones*, which for some reason went all dark and brooding. This has the unfortunate effect of making the film look like just another generic swords-and-sandals affair, of the kind released in wearying numbers following the success of Ridley Scott's *Gladiator* in 2000. I suspect a lot of people saw the posters and trailers, thought, "Oh no, not another one," and wrote it off there and then.

Compounding this is the fact that the more outlandish elements of the plot aren't introduced until 30 minutes in. Consequently, for a quarter of its two-hour runtime, the film doesn't just *look* like a generic swords-and-sandals affair – it *feels* like one too. An expensively-made one, certainly, but seemingly nothing special beyond that. Then suddenly the king is cooked to death by a poison-laced prayer robe; and before you have a chance to ponder how weirdly silly that is, Prince Dastan discovers the time-

rewinding powers of the stolen dagger in a sequence that looks fantastically cool and does a great job of establishing how the magical artefact works. From there we get ostrich races, angry gods and sinister black-clad assassins who can travel in sandstorms and attack people with snakes, all building to an elaborate finale that wraps things up most agreeably. Thankfully there's none of the "cinematic universe" malaise where the filmmakers spend so much time setting things up for future films that they forget to make the one you're watching entertaining.

It's easy to guess why the creators dialled back the fantastical elements; including all the dagger's capabilities (in the game it can slow and freeze time as well as reverse it) and turning most of the cast into maniacal sand-zombies would likely have been too costly. But those are the *really* fun bits, and you find yourself wishing the movie had more of them. Dastan only gets to use the dagger's magic twice before the climactic showdown, which feels like a missed opportunity.

That pretty much sums up the film in general. It's fun, and much better than reviewers seemed willing to give it credit for at the time, but with more magic and more colour it could have been significantly better still. Seems funny to be saying that about a Disney flick.

To Be Continued?

After *Sands Of Time* failed to rake in the cash they'd hoped for, Disney dropped its plans for further *Prince Of Persia* films like a hot kebab. The franchise as a whole has been quiet for years, ever since the 2010 game *The Forgotten Sands*, which was released to tie in with the movie. However! Quite unexpectedly, at Summer Game Fest 2023, Ubisoft announced that a new game is in the works. Entitled *Prince Of Persia: The Lost Crown*, it sees the series returning to its side-scrolling roots, and it's scheduled for release on PC and consoles in January next year.



One criticism repeatedly levelled at *Sands Of Time* when it came out was that it represented a particularly egregious example of Hollywood whitewashing, since all its principal players were Caucasian rather than, for example, of Persian descent. And, well, yes. Hard to convincingly refute that argument, really.



A modern MMC SD card filer unit for the BBC Micro. These storage solutions are now so small they can actually fit discreetly into the 'USER PORT' under the machine.

ACORN BBC MICRO IN 2023 & BEYOND! PART 3

- Pushing the limits & new hardware for the Acorn 8-bit!

In previous instalments, we investigated common faults and issues regularly encountered by enthusiasts looking to return an 8-bit Acorn BBC Micro computer back to working order. We finished by exploring the use of original 5.25" and newer 3.5" floppy disks and drives as viable storage media.

However, even floppy disks can be rather cumbersome and lead to compatibility and reliability issues, especially if you want to quickly and easily move data to your BBC from a modern PC.

Luckily there are some brand new alternatives for data storage that allow just that, and do away with the need for tapes or floppies altogether!

Modern Data Solutions: MMC

MMC or SD card solutions have been available from online sellers for about 10 years now. Most now use SD or Micro SD cards and small card reader devices that connect to the BBC Micro's User Port, either by ribbon cable for older MMC models or directly under the machine for newer devices which is a really neat solution!

MMCs also require an additional set of drivers in order for the Beeb's OS to use the device. Nearly all drivers for a BBC Micro have to be manually installed via a

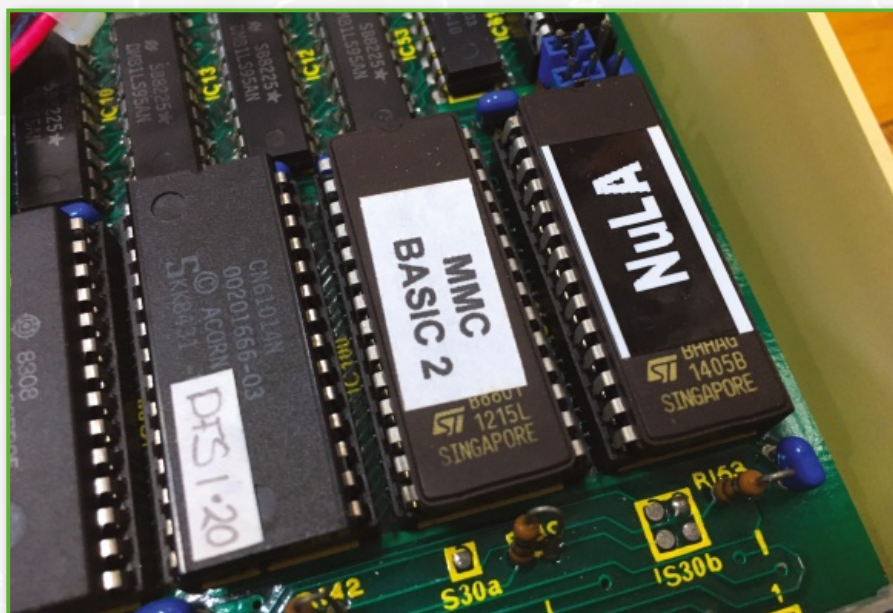
supplied EPROM chip which needs to be installed in a spare internal ROM socket.

For the Model Bs, the ROMs are hidden under the keyboard, which must be lifted first. On the newer BBC Master Systems, the ROMs are easier to access with the sockets being found on the upper right side of the main motherboard. Extra ROMs can also be fitted into a removable cartridge that is inserted into one of the two top case slots.

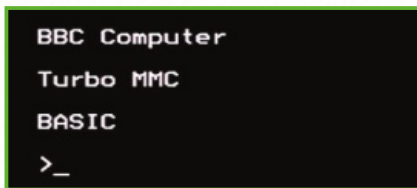
For Model B owners, your BBC will need its User IC chip fitted and working (centre bottom under the 6502) to use MMC devices, but does not require a DFS ROM or floppy controller to be present.

If working correctly, most MMC devices will display their driver name in the boot prompt on startup such as in the example 'Turbo BBC'.

If not you might have to select the card



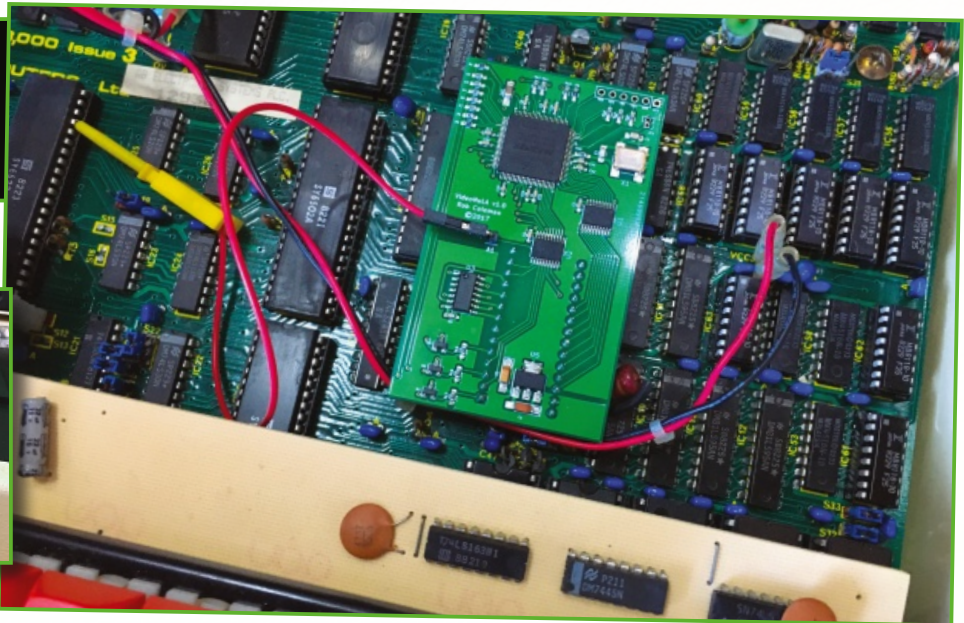
A selection of EPROMs including drivers for the MMC filer system hardware and NuLA graphics card.



The boot prompt from a stock BBC Model B 32KB with working Turbo MMC hardware and system drivers installed.



An 'off the shelf' GOTeK floppy drive emulator unit, allowing the BBC Micro to load software from modern USB flash drives.



Rob Colemans Video NuLA graphics card fitted to a BBC Model B allowing for extra screen modes and up to 4000+ colours with a full customisable 16 colour MODE 2.

with the command ***CARD** followed by pressing the **RETURN** key.

By default most MMC SD cards have a preloaded games menu which can be started with a simple **SHIFT + BREAK** key command, and follow onscreen instructions.

MMCs are ideal if you just want to play games quickly and easily on your BBC Micro. However they are tricky to use if you want to save data or upload new disc images.

Most MMCs use a bespoke file format which compiles a number of .SSD or .DSD floppy image files into a single image file which is then copied to the FAT formatted SD card.

The issue is the software for this is now rather old, only working on Windows XP up to Windows 7. Beyond this, I've not tested. It does mean you have to run an older x86 PC with SD card support to change the images on the MMC, which can be time consuming to set up especially if you just want to quickly try a new disk image.

GoTek

Personally, I have found that GoTek floppy drive emulation has been a much better and more flexible solution over MMC SD cards.

GoTeks are small USB devices the size of a 3.5" floppy drive that fits your system's existing floppy disk 36 pin ribbon cable and molex power connector. The BBC

Micro does not require any modification or additional hardware. However in the case of the BBC Model B, the GoTek will still require a working DFS filing ROM and floppy controller to be present in your system.

Standard BBC .SSD or .DSD disc image files can be copied onto a normal FAT32 formatted USB data stick or pen drive from any modern Windows, Mac or Linux machine. The USB stick is then plugged into the GoTek and the BBC Micro powered up. Disk images can be chosen using the buttons or rotary dial on the front panel. Some GoTek modules have higher res full file name LCD displays, however mine just shows two numbers, so it's important to remember the named filing order on your USB data stick!

With your image selected you can use it just like a real Floppy disk on the computer.

The contents can be viewed directly with a ***CAT** command. If a game disk has a !BOOT file present, pressing **SHIFT + BREAK** will auto start the program.

I have found the GoTek drive flexibility to be really useful, I've even had fellow enthusiasts visit me while I've been out exhibiting my BBC Micros at events with programs they want to test out on USB sticks. These programs just loaded up first time and worked without issue! The novelty of this still hasn't worn off!

Modern BBC Micro Enhancements

In addition to the products already covered in this article series, the 2010s ►



The original 1989/1990 version of SimCity for the BBC Micro used a rather bright colour palette which was hard on the eyes. Video NuLA can be used to recolour games such as SimCity giving more pleasant greens, blues and even greys for buildings and roads.



also saw a number of new BBC Micro enhancement products appear in the online market place.

As opposed to just replacing and replicating what the BBC Micro could already do, these new devices and add-ons pushed the veteran 8-bit hardware to its limits and beyond! They allowed what seemed impossible, such as executing 16 and 32-bit code, introduced new colour palettes and in some cases even higher resolution screen modes! Even pushing the BBC Micro beyond what its replacement the Acorn Archimedes was capable of!

Video NuLA

Developed by Rob Coleman, I first saw the Video NuLA concept prototype a few years ago at one of the many regional Acorn RISC OS exhibition events. At the time I was really impressed with Rob's concept and was one of many who encouraged him to pursue it further, resulting in a viable saleable product.

The Video NuLA is a PCB card solution

that replaces the often failing ULA graphics chip found in all BBC Micro systems. The originals, a custom IC chip manufactured by Ferranti, are known to go bad. Even when new, early examples fitted to the BBC Model B ran very hot, requiring a heatsink to prolong their lifespan.

The original ULA also only output digital TTL RGB video so only eight 'logical' colours were available including black and white despite the BBC Micro sometimes being listed as a 16 colour system.

The Video NuLA board slots into the chip socket and replaces the ULA IC, which is an easy replacement for the Model B. The BBC Master System's ULA is soldered in so replacement is a little more tricky.

Once installed, Video NuLA gives the BBC Micro an additional 4000+ RGB colours, all accessible from stock BBC BASIC, for example meaning that MODE 2 can now have a full 16 colours on screen at once! Additional colours include greys and oranges, tones the



The boot screen for the 16-bit Acorn x86 version of Digital Research DOS operating system, running on a BBC Master 128 with the PiTube Direct Raspberry Pi co-processor.

BBC Micro has never been able to produce before.

NuLA users will need to be aware that the video out RGB DIN socket on the rear of the machine is now putting out analogue RGB and not digital TTL.

CRT based displays like the original Microvitec CUB displays can only work with TTL RGB unless internally converted for analogue use. Monitors such as these can still be used with NuLA fitted BBCs but only the stock default eight colours will be displayed.

Later displays that use DIN to SCART cables (as shown in part one of this series) will work fine with the Video NuLA being able to display the full range of colours on screen.

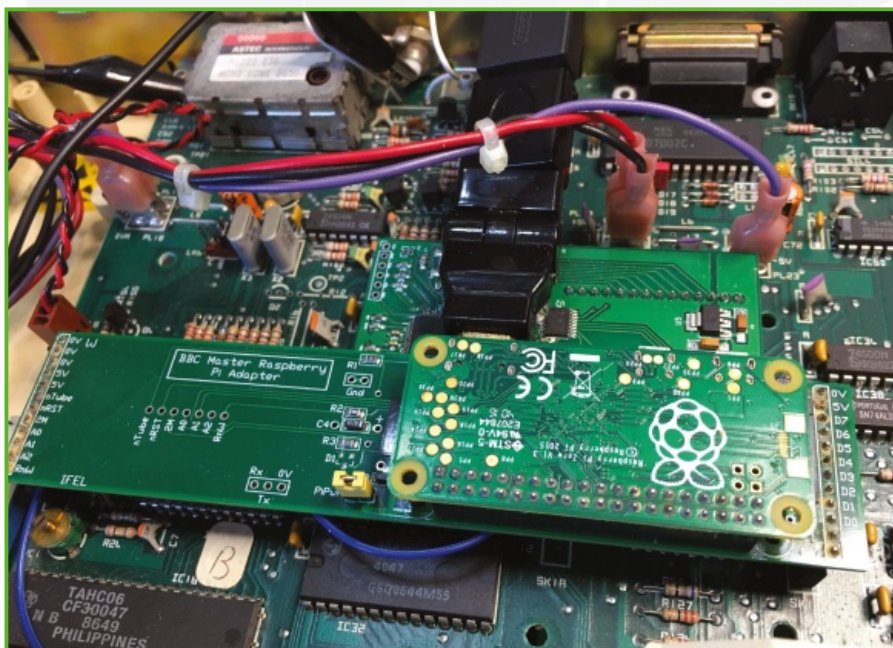
The ROM or disk tool utilities provided with Video NuLA, allow users to set up and save custom colour palettes for existing games, without the need to change any of the game source code.

A good example is the custom palette I created for the BBC Micro version of *Sim City*, which originally used a horrid bright red and yellow palette, very hard on the eyes! After applying a custom palette, I had adjusted the game to a much more pleasing green land, blue water and grey roads and coloured buildings, all done without modifying any of the original game source code!

PiTube Direct

Another recent development is PiTube Direct which is an interface PCB allowing a 40-pin GPIO based Raspberry Pi to interface via the BBC Micro's 'Tube' interface port, either externally under the machine, or in the case of the Master System internally.

The Pi, which mostly runs 'headless', can act as a switchable second processor, replacing the old style 'cheese wedge' second processor units. The Pi's onboard software emulates a wide range of processors, from faster and overclocked



A modern internal BBC Master PiTube Direct PCB with a Raspberry Pi Zero and HDMI video adaptor fitted.

6502s, Z80s, 6809s and even a 16-bit Intel 286, which allows for PC-DOS and desktops GUIs like GEM to be used by some BBC Models.

The advantage for the modern enthusiast is the ability to run the very few coprocessor games such as the enhanced version of *Elite*. The second 6502 allows for expanded RAM on the Model B and faster BASIC, allowing for programs and games to be written that would otherwise be too slow at the BBC's default 2MHz.

In addition PiTube Direct allows a BBC Micro to take full advantage of the Raspberry Pi meaning you can run 32-bit ARM code or the BBC BASIC V interpreter up to 1000MHz depending on your Raspberry Pi hardware and configuration.

The final party trick more recent firmware builds of PiTube Direct can perform is outputting an alternative HDMI video signal out from the Raspberry Pi itself. This completely bypasses the ULA chip discussed earlier, and like the Video NuLA offers additional colours and screen modes all in crystal clear 1080p high-definition. Quite an achievement for a 40+ year old machine!

Acorn's Legacy

The 8-bit Acorn BBC Micro community is still very active, and the machines, whether you loved or hated them, played an important role in British computer science education and in many ways contributed to the story of the personal computer,



The authors BBC Master 128 outputting high resolution multicolour HDMI video via the machine's modern internal PiTube Direct Raspberry Pi powered co-processor.

eventually leading to the development of the ARM CPU that the modern mobile world relies on so heavily.

It's testament to the design and build quality of these 8-bit veteran computers that those that survive continue to enjoy a renaissance in the hands of collectors, museums and people like us... enthusiasts.

Personally there is still very much a joy in owning and using a computer platform

that meant so much to me as a child back in the 1990s, and seeing just how far the hardware can be pushed here and now in the 21st century!

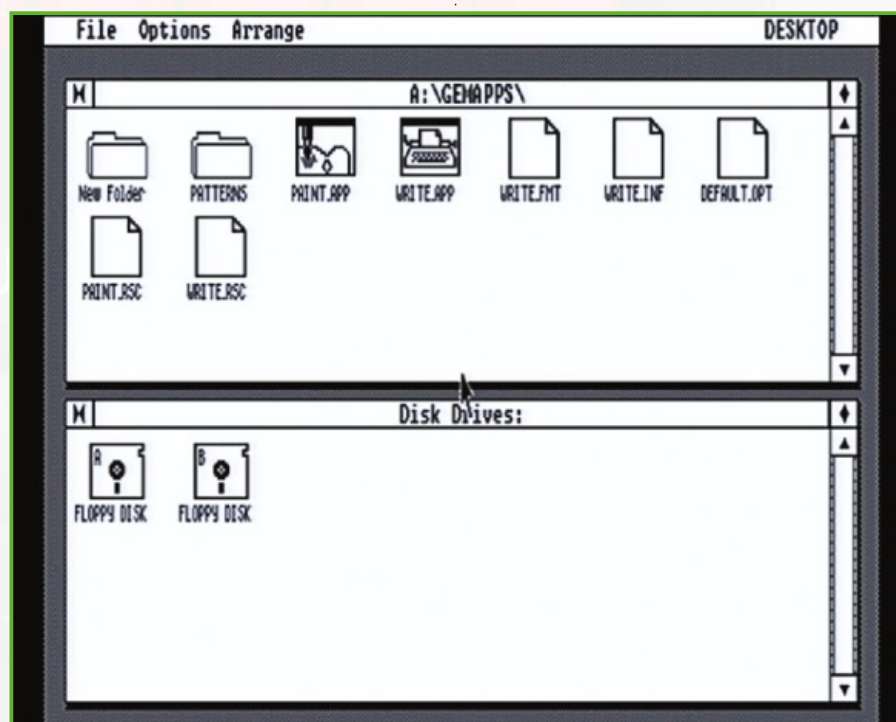
Hopefully this mini series has inspired you to look again at the BBC Micro, and maybe look to get your own system together? Be it just one Model B with a eMMC drive, or perhaps a complete master setup with CRT monitor, twin 5.25" floppy drives, internal coprocessor? The list goes on!

And who knows, it may very soon be possible to build a completely new and 100% compatible 8-bit BBC Micro from the ground up? With everything from brand new PCBs to 6502 CPUs still being manufactured now in the 2020s!

The future is still very interesting and bright for these mighty but humble beige boxes from the classrooms of yesteryear!

Safety Note: The BBC Micro and its hardware accessories may contain high voltages and easily damageable components. If you're not confident in undertaking the works described in this series, please consult a qualified expert. The author, editor or publisher can take no responsibility for any loss or personal injury as a result of any of the activities documented in this publication.

All activities are done so at your own personal risk.



Although BBC Micros couldn't run Windows, they could run the GEM Desktop environment. This is GEM 2.0 running on a BBC Master 128 in x86 16-bit mode. Some PC IBM software and even games could also run, including colour CGA graphics!

TEMPLEMAN'S TREASURES

- Another gorgeous French machine

Last time we looked at the Philips VG5000. A quirky machine with the most bizarre keyboard layout I have ever seen. It had moderate success in France. Staying with the French theme we are looking at a machine that had a fair amount of success there - I present the gorgeous Thomson TO7.

Thomson wanted to be the French version of Apple. They saw the huge success of the Apple II, and thought that they could develop a machine that could bring that level of success to France. During this time, it was not only Apple looking at the French market, other successful companies were also looking towards France as a potential new market (hello Clive!). The French government were in two minds. Build a home grown micro, or utilise an existing successful manufacturer. Meetings were held with Apple, and some initial design specs were proposed. Apple agreed to provide a very French specific version of the Apple II, but after being quoted a per machine price of roughly four times the cost of a possible home grown Thomson machine... the decision was made. The Thomson MO5 and TO7 were born.

Back in the early 1980s, we in Britain were in a deadlock battle when it came to CPUs, and with the exception of a few renegades (hello Dragon!) we were either in the Z80 camp, or bunking down with the 6502/10. These were tried and tested CPUs that powered the likes of the mighty Sinclair ZX Spectrum and the unstoppable Commodore 64 and Apple II machines. But there were other CPUs, and very good ones at that! So why do I mention this? Well, the Thomson range of machines (MO5, MO5E, TO7, TO7/70, MO6, TO8 - and before you ask, yes, I do have them

all) utilised the 6809 processor. In fact, this machine is the slightly later TO7/70 from 1984. It has a 6809E CPU, 64KB (RAM+VRAM) and a 6KB ROM (hence the 70 in the name). It can display 16 colours and has a resolution of 320x200. So this machine is no slouch in the specs department. But it has a hidden party trick. Lifting the small flap above the keyboard reveals a storage bay, in which is the built in light pen!

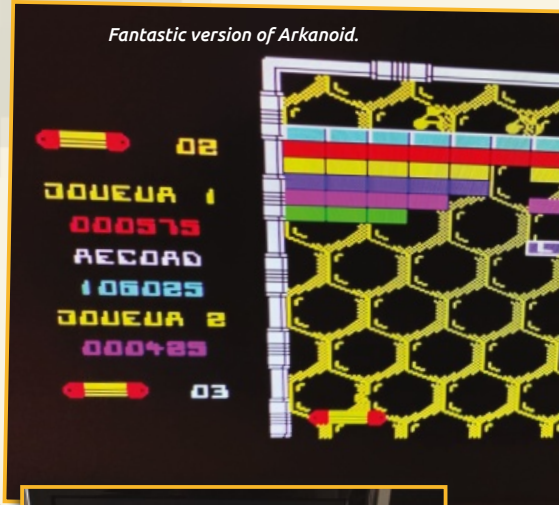
The Thomson TO7 and the MO5 were sold in fairly large numbers to schools. Thomson was the main supplier of the French National Education for the *Informatique Pour Tous* (Computing for All) plan. You could say that the Thomson was the French BBC Micro. The plan was a French government initiative to introduce computers to the country's schools. The plan allowed first access to computers for many students and their teachers, and a first introduction to programming. Thomson decided to present two offerings to the schools, the



A MEMO7 cartridge.



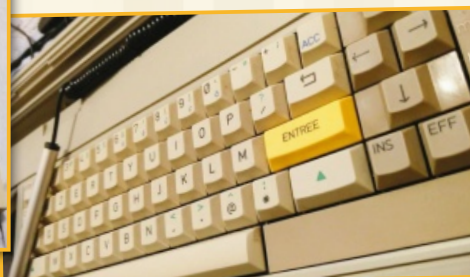
The Thomson TO7 in all its glory, showing off that built-in light pen.



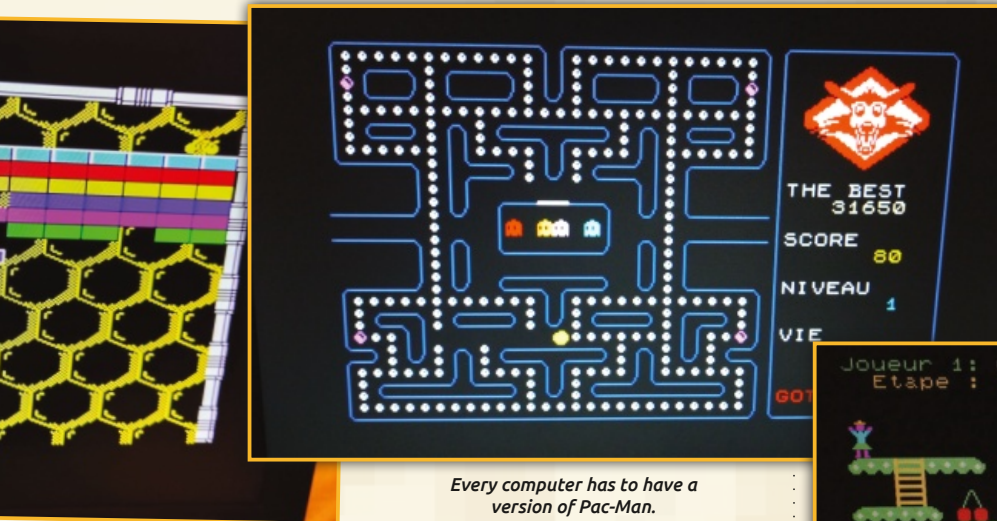
The TO7's version of Lode Runner isn't bad at all.

MO5 and the TO7. Unfortunately, a few months after the plan was launched, only around 10% of teachers used the computer in the classroom. The plan was considered a failure, but the machines would live on as affordable home computers.

The TO7 has a rather nice cartridge port on the left hand side, a sleek design that uses a Thomson standard called MEMO7. A lot of educational software came on cartridges and most of it supported the light pen. The TO7 is a fairly large machine, comparable in size to a Commodore 128, although its sister machine the MO5 is more akin to an Oric1. So what is the Thomson TO7/70 like to use? Well, frankly it's absolutely fantastic. My machine has the mechanical keyboard rather than the earlier chiclet type, and it makes a huge difference. The whole design of the TO7 is gorgeous. Out of all the 150+ machines (warning - controversial comment coming!) in my collection I personally think that the Thomson TO7/70 is the best looking



By Roy Templeman



Every computer has to have a version of Pac-Man.

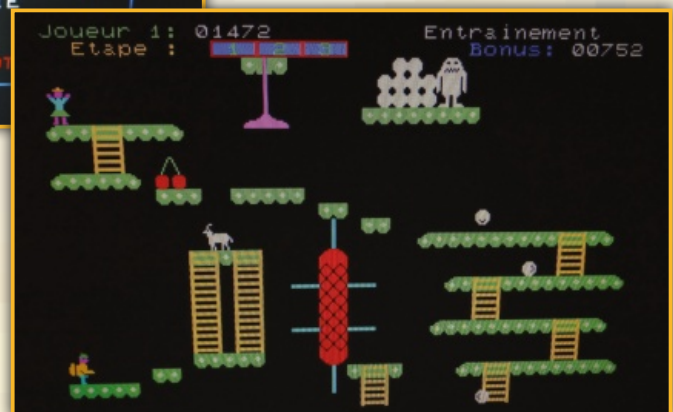
8-bit machine of them all. Just look at it! The version of BASIC that comes with the machine is excellent, and there are a decent number of games available, given the school involvement and kids asking Mum and Dad for either an MO5 or a TO7 for Christmas.

While using the machine you quickly forget all about that Z80 vs 6502 thing, as the 6809 powered Thomson delivers all the power you need, and doesn't even break a sweat. As it's a

French machine, it utilises SCART RGB (Peritel) for a crystal clear picture, so when you add all this up you get a lovely looking fast machine, with decent amount of RAM, great keyboard, good sound, bright on screen colours in hi-res with loads of games... and a built in light pen! What's not to love about this awesome hidden gem of a machine?

Treasures Rating: 3 (rare)

PA



Yeti. It's a bit like Donkey Kong, but with added goats!

SUBSCRIBE TO PIXEL ADDICT

Your long-term support helps to secure our future!



As well as saving money, subscribers also benefit from receiving a free digital download of each issue.

VISIT WWW.ADDICT.MEDIA

BUY ONLINE FOR
OUR BEST PRICE

Ewbank's

Retro Video Games & Consoles Auctions

Next Auction: Friday 11th August



Sold for
£442



Sold for
£468



Sold for
£715



Sold for
£468



Sold for
£234



Sold for
£338



Sold for
£2,340



Sold for
£260

Accepting consignments now
Contact us for a free valuation

01483 223101

info@ewbanks.co.uk

www.ewbanks.co.uk

Like and follow our
Instagram account,
Twitter &
Facebook page



Sign up to our
mailing list... don't
miss out on
upcoming auctions,
info and more!

APPLE'S IPOD AND MICROSOFT'S ZUNE

- The battle for the future of music

By Huxley Dunsany

www.retroroadshow.org

@Huxley_D

www.youtube.com/TheRetroRoadshow



The history of popular music in the 20th century is a wild, sprawling and unruly tale. Between the shocking emergence of blues-influenced jazz in the 1920s, the cultural upheaval brought by rock-n-roll in the 1950s, and the anti-establishment blowback of punk and hip-hop in the 1970s/1980s, popular music grew from a mere pastime into a culture-defining force. However, along with its impact on culture, the *technological* history of music in the 20th century can primarily be defined with a single word: miniaturisation. Music players evolved at a brisk pace throughout the 20th century, from the intricate clockwork mechanisms of Victrola turntables to the pocket-sized transistor radios in the 1950s. Continuing this trend, no consumer product of the 1980s can compete with the Sony Walkman for sheer overwhelming global popularity.

While transistor radios played a large role in popularising the emerging musical forms of the mid-century, they suffered from one serious limitation: a listener could only enjoy whatever music a nearby radio station happened to be transmitting at any given time. Other than switching from one station to another, the user had little control over what they actually listened to. The Sony Walkman's ability to play music from cassette tapes revolutionised the enjoyment of music outside the home, empowering listeners to actively decide what songs they felt like hearing from one moment to the next. As the 20th century drew to a close, a new technology arrived which once again changed everything.

MP3 is a digital audio compression technique developed in the mid-1990s by researchers at the Fraunhofer Society, a German scientific research group. With

MP3 compression, a song's digital file size could be significantly reduced while still offering acceptable sound quality - a valuable trick in the era when large hard drives and solid-state flash memory were expensive luxuries. The sudden arrival of MP3 encoding combined with the surging popularity of the internet gave rise to services like Napster, which enabled easy, anonymous sharing of songs between users (with dubious legality). Listening to those songs on a computer worked well enough, but most users wanted a Walkman-like experience, and thus a market suddenly existed for portable MP3 playback devices.

Consumer interest in MP3 music grew at an incredible pace, and the market responded. In the 18 to 24 months following the release of the first widely-available MP3 player in early 1998, hundreds of competing devices flooded the market, incorporating a wide range of aesthetics and storage technologies. Some were designed around solid-state flash memory, others used mechanical hard drives, and soon many portable CD players gained the ability to play MP3 files from burned CD-R/RW discs. Of course, each of these technologies had strengths and weaknesses. Flash-based players were physically small, but were expensive and their storage capacity was extremely limited. Players with mechanical hard drives offered many times the capacity of a flash player at comparable prices, but tended to be bulkier and more fragile. Finally, CD-R players allowed a user to quickly switch between discs with hundreds of songs each, but required that the user have a CD writer - a slow and expensive rarity in those days.

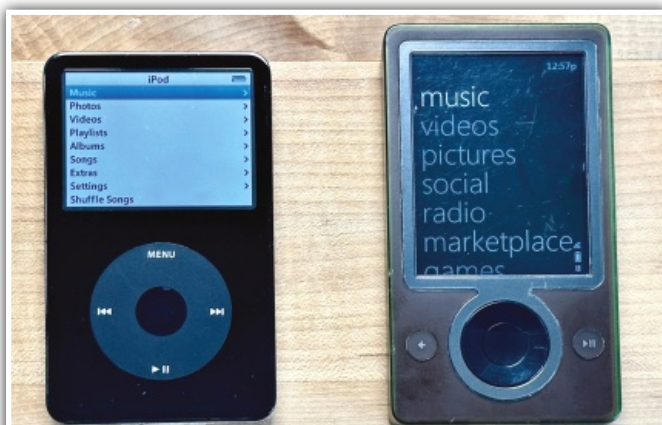
When Apple entered the market with the iPod in late 2001, their device was a significant departure from earlier MP3



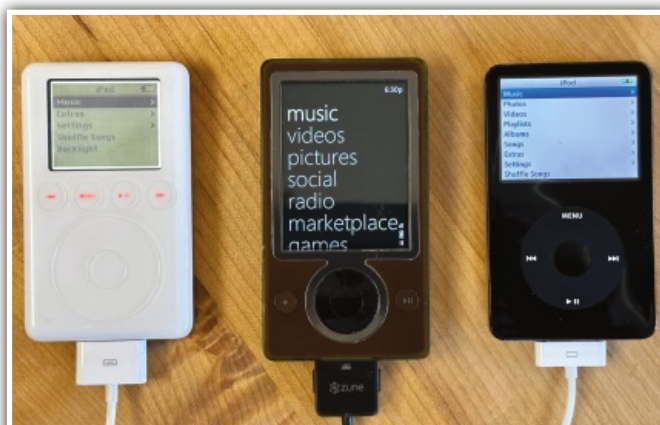
The rear of the Zune features the Zune logo above a curious circular indentation. The unusual matte finish of the Zune causes its distinctive brown casing to appear grey at some angles and in certain lighting conditions.

players. Featuring a 5GB hard drive and an intuitive scroll-wheel-based user interface, the iPod famously enabled users to store "1,000 songs in your pocket." In comparison to earlier MP3 players which mostly appealed to hardcore internet enthusiasts and self-described geeks, the sleek white iPod was marketed like an aspirational lifestyle item.

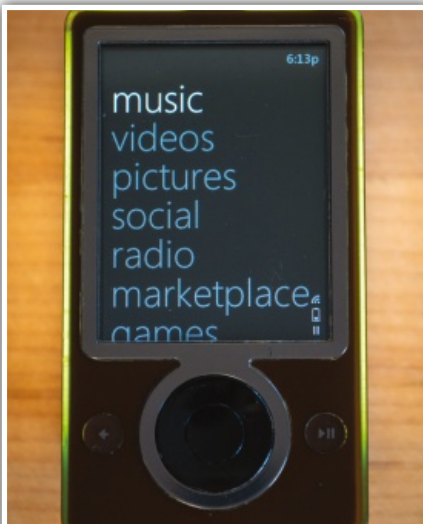
Initially, Apple used the iPod to boost Macintosh sales by making it exclusively compatible with their own computers. This "Mac Only" strategy was successful, as the popularity of the iPod had a positive effect on Mac sales, and played an important role in pulling Apple out of their 1990s doldrums. However, in 2003 Apple began offering iPods (and their iTunes music management software) for Windows-based PCs, and also introduced the iTunes Music Store - a convenient and legal way for users to buy digital music. This convergence of Apple's premium devices with Windows's massive global



The Zune alongside its chief rival, the Apple iPod.



A Zune (centre) flanked by two Apple iPods.



While the Zune was immediately recognisable for its unusual brown colour scheme, the clear-shot edges of the device are tinted green and look striking when illuminated from behind.

user-base resulted in a period of staggering growth for Apple and the digital music industry.

Of course, there was another industry titan who was watching these events with increasing concern: Microsoft. Apple and Microsoft have navigated a complicated relationship since the earliest days of personal computing, at times uneasy partners, at other times antagonists. Microsoft watched helplessly as Apple quickly became the dominant force in online music sales and MP3 players too, all in an era when Microsoft Windows accounted for over 90% of the desktop computing market. Apple's ability to design devices that consumers craved while also forging mutually-beneficial relationships with record labels suddenly had Microsoft at a major strategic disadvantage, with neither a popular online music store nor a desirable portable music player of their own.

The Mother of the MP3

During the development of the MP3 compression technology, the research team needed a piece of audio with which they could test their algorithms. Researcher Karlheinz Brandenburg heard Suzanne Vega's song *Tom's Diner* playing on a nearby radio and felt that it would be a perfect sample for testing, as the warm tone of her vocals would be obviously diminished by overly-aggressive compression. Only after their compression algorithm could reduce the song's file size without ruining Vega's iconic vocals was MP3 technology considered worthy of release, resulting in Suzanne Vega being unofficially declared the "Mother of the MP3."

Eager to make up for lost time, Microsoft appointed longtime executive J Allard to spearhead a project to launch a digital music player and corresponding online music marketplace of their own. Rather than engaging in a lengthy hardware development cycle, Microsoft decided to work with Toshiba to modify and rebrand Toshiba's existing Gigabeat S MP3 player as a Microsoft product. The Gigabeat player was already closely associated with Microsoft, having been a showcase for Microsoft's *Portable Media Center* software and featuring direct integration with the Xbox 360 gaming console (a product also developed by J Allard). The hardware side of this newly-launched project was code-named 'Argo', and the matching software and music store was code-named 'Alexandria'. Together, they would be known as the Zune.

Microsoft and Toshiba collaborated to modify the Gigabeat S into a new device they hoped customers would find irresistible. These hardware modifications included giving it a larger, higher-resolution display (and making it larger overall), dropping the cross-shaped navigation buttons in favour of a rounder, more iPod-style rounded nav-button, and adding WiFi capabilities. One key element of the Gigabeat S which was retained, however, was the built-in 30GB hard drive - enough storage for thousands of songs, photos, videos, audiobooks and more.

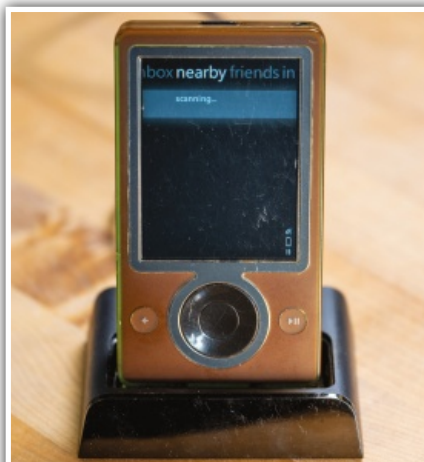
Similarly, the Gigabeat S's on-screen interface received a major overhaul. Rather than the dated-looking Windows XP style interface found on the Gigabeat, Microsoft developed a clean, intuitive menu system for the Zune which was clearly inspired by Apple's iPod, but with a more colourful look and subtle animated 3D effects. Finally, in what became the



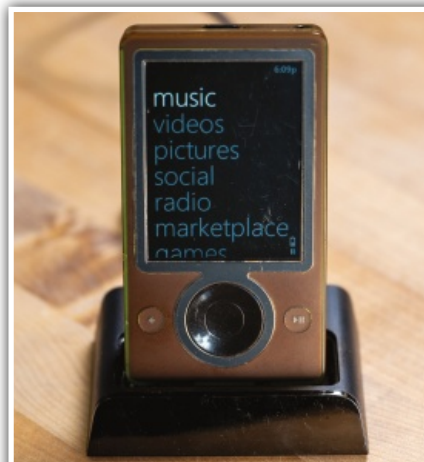
The Zune is deep enough to allow it stand up vertically without a stand.

Zune's defining characteristic, J Allard and his team decided to visually differentiate the Zune from the gleaming white iPod by adopting a rich, deep brown colour for the hardware. While the overall shape and layout of a Zune and iPod might look similar, the unique brown casing would ensure that a Zune would be unmistakable in comparison to anything else on the market.

J Allard and his team knew that simply cloning the iPod with Microsoft software and Toshiba hardware would not win over consumers. Instead, they took advantage of their powerful Zune hardware to offer users some fascinating capabilities not found on Apple's devices. Leveraging the wireless capabilities in their new player, Microsoft put a major emphasis on the social aspects of sharing music, though carefully avoiding any copyright infringement. Along with ripping their



One of the marquee features of the Zune was its ability to wirelessly detect the presence of other nearby Zune devices, so that their owners could "squirt" songs to each-other. Here we see a Zune attempting to locate another WiFi-enabled Zune.



The optional Zune Dock Pack provided a weighted cradle for displaying and charging a Zune, along with a variety of audio and video outputs for connecting a Zune to a home theatre system for music, photo and video playback.

own music from CDs or purchasing songs from the Zune Marketplace (the online media store previously code-named Alexandria), Zune owners could 'squirt' songs wirelessly to other nearby Zunes without needing to sync to a desktop computer, and those songs could be played back a few times before the recipient needed to pay a fee to continue listening.

Another interesting feature of the Zune was its built-in FM tuner, which supported Radio Data System - small bundles of digital information broadcast alongside analog radio content. By leveraging RDS data, the Zune could display additional details on screen while a user listened to the radio, including station identification and artist + title info for songs. This capability blurred the lines between the fading analog world of FM radio and the digital world of MP3 players, and was seen by many at the time of the Zune's release as a significant advantage over the iPod.

For the launch of the Zune product line for the 2006 holiday shopping season, Microsoft put their considerable resources behind the fledgling product. Their marketing strategy largely focused on the wireless-sharing capabilities of the Zune and the social interactions they hoped it would foster, leading to the Zune slogan, "Welcome to the Social."

Perhaps unsurprisingly, consumer reaction to the Zune was largely indifferent. While some early Zune adopters did become passionate fans (one infamous fan had the Zune logo tattooed onto his body), the social-sharing aspect of the Zune wasn't communicated effectively, leading to widespread confusion among potential buyers. Furthermore, the unusual brown colour of the initial Zune hardware seemed to invite scatological humour, which online critics and jokesters took swift advantage of.

With the benefit of hindsight, the Zune committed the ultimate sin of any ill-timed product: it sought to compete in a market that was on the eve of being totally disrupted. Less than two months after the Zune launched, Apple announced the iPhone. Introduced by Apple cofounder Steve Jobs as "...a wide-screen iPod with touch controls, a revolutionary mobile phone, and a breakthrough internet-communication device," the iPhone instantly made every previous handheld device look antiquated in comparison... including Apple's own iPod. In other words, Microsoft had spent a vast sum of money to develop and launch an iPod competitor mere weeks before Apple essentially obliterated the iPod and the entire market for dedicated MP3 players. Of course, the iPod and other MP3 players continued to

be sold for several more years, but the writing was on the wall: the Zune was fighting for a spot in a rapidly-dying category.

For the next few years, Microsoft worked to establish the Zune as a viable platform, with multiple generations of improved devices and numerous improvements to its applications and online services. Later Zune devices were smaller and sleeker than the original model due to dropping the mechanical storage in favour of flash memory, and the final Zune mimicked the iPod Touch with an all-touchscreen design. Despite all this, the Zune never exceeded 8% market share against the iPod, and this includes the later years when Apple's own iPhone was decimating iPod sales.

In the end, Microsoft blundered on multiple levels with the Zune. With unclear differentiation, a marketing campaign emphasising social / sharing behaviours that Microsoft *hoped* users would care about, and strangely-coloured hardware designed to compete against iPods at the exact moment that iPods were eclipsed by the iPhone, the Zune struggled to justify its existence. Nevertheless, the Zune was an ambitious and in some ways forward-thinking device which deserves more respect than its status as a barely-remembered failure might imply. While consumers of 2006 were largely indifferent to the Zune's ability to 'squirt' songs to each-other, in 2023 it feels totally natural to quickly instant-message a Spotify or Apple Music link to a friend. In other words, music lovers today enjoy a cloud-enabled evolution of the same concept, but without the limitations imposed by mid-

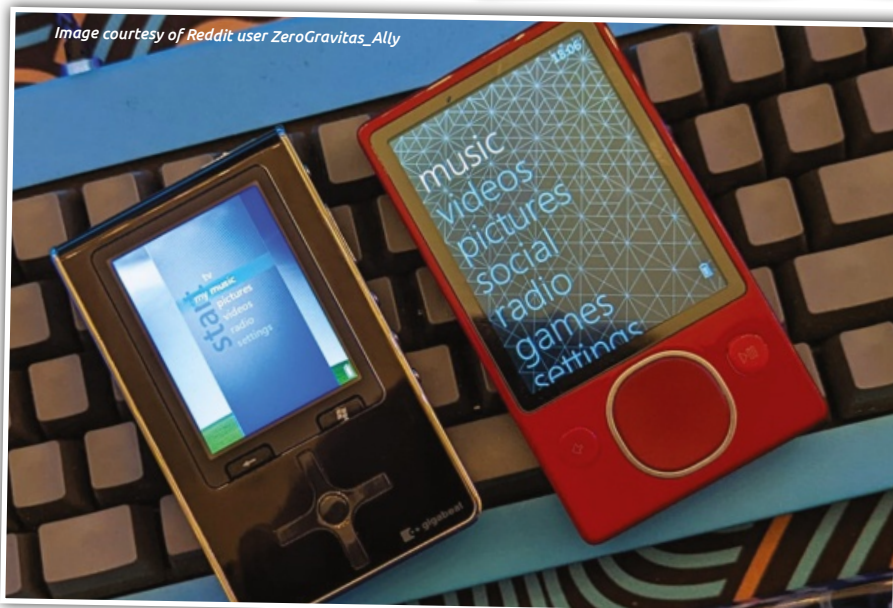


In a not-so-subtle spin on Apple's famous packaging text "Designed by Apple in California," Microsoft printed "Hello from Seattle" in tiny print on the rear of every original Zune.

2000s technology and music licensing agreements. While the Zune failed to unseat the iPod and capture the MP3 player market before that market was superseded by smartphones, it remains a fascinating example of how having the right ideas at the worst possible time is rarely a recipe for success.

Guardians of the Zune

In Marvel's *Guardians of the Galaxy* films, lead character Peter Quill (a half-human, half-god raised by aliens far away from Earth) inherits a Zune from his adoptive father. Given its technological superiority to the cassette-tape player he previously inherited from his human mother, Quill (who is largely ignorant of life on Earth) is humorously informed that it is "...called a Zune. It's what everybody's listening to on Earth nowadays. It's got three hundred songs on it." The Zune becomes both a running joke in the Marvel Cinematic Universe, and the source of a number of classic songs played across various MCU movies and TV shows.



Pictured here are the Toshiba Gigabeat S (left) and original Zune 30GB (right). The Zune was essentially a modified Gigabeat device, enhanced with more powerful hardware and a new operating system.



BITMAP
BOOKS

PC ENGINE: THE BOX ART COLLECTION

www.pcenginebook.com



THE GAMING EVENT KEEPS GETTING BIGGER & BETTER

- Paul checks out FORMAT as it levels up

We've discussed the FORMAT events previously but there were several reasons why we had to go back for this show, which took place on 25th May 2023.

Organiser Simran Whitham pulled out all the stops this time as the third floor of the venue was opened up to showcase *more* game developers and increase the capacity for *more* gamers, eager to see what FORMAT is about. The nightlife element was in full swing with music, cosplayers and competitions spread around the venue. But for many people it was just about the games...

Any New Games On Show?

First up is *Eight Dragons 2* from Extend Mode. The original game was released in 2019 and this sequel aims to build on what came before. Up to eight players take on various gangs around a city which can be taken on in any order you like. This open world setting also includes side missions to gain and enhance your skills using what has been classed as "some RPG elements." The levels I saw included the streets and a nightclub where nearly everything could be picked up and used as a weapon! Speaking to Chris from the Extend Mode, he informed me *Target Renegade* was a huge influence for them. The game is due to be released next year but I'll be keeping a close eye on it due to being a huge fan of the genre.

Huey Games were in attendance again giving a debut playable showcase of *Mechinus*. This upcoming puzzle platformer may be for modern systems but when a company with links to Hewson Consultants is excited over a new project you take note! Playing as Cognito, a machine cog creature, your mission is to

keep your mechanical ecosystem ticking along. It is early days, but there are high hopes for this and it looks beautiful! You can find more details on Steam: www.hueygames.com/mechinus

A familiar face at these events is Alastair Low, the man behind Lowtek Games. Previously releasing *Flea* and *Tapeworm Disco Puzzle* on various formats. *Playhead* is an excellent puzzle game whose screen layout will be familiar to users of YouTube. Using the scrub bar at the bottom you can zip back and forth through time, this moves elements of the level around in order to help the main character navigate. Other characters in the "comments" will offer tips. Check out the demo on Steam: <https://store.steampowered.com/app/1894700/Playhead/>

Sadly, I didn't get to actually play a rather unique game called *Bib Goes Home*. This title uses an actual pop-up book containing all the game locations, platforms and obstacles. Then a projector superimposes the character of Bib onto the book's pages. Clever stuff indeed. Check out: www.lowtek.co.uk for updates.

Finally, *Walkies* from Gaslight Games Limited is a mini open-world third person adventure. Play as a dog and help save the local rescue centre, solve puzzles, help friends and more. One for fans of games such as *Spyro*. No date for this one yet.

Aside from these new titles it was also great to see the team behind *Bubblegum Zombie Hunter* in attendance again. They informed me progression on the game was coming along well. They had brought along a new level for people to try out. As previously stated in PA issue 7, this game could be a great spiritual successor to *Zombies Ate My Neighbours*.



Mechinus - you gotta roll with it.



Extend Mode made sure you couldn't miss Eight Dragons 2 by bringing this cabinet.

Continued Growth

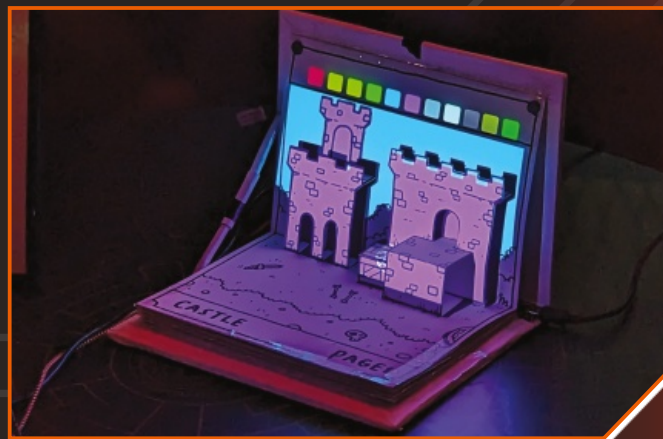
To sign off I have to say it's amazing to see the growth of the event thanks to the efforts of Simran and his team. Gaming royalty was in attendance with ex-Rare staff Kev Bayliss and David Wise dropping in to say hello, pose for some photos, and play some games.

The previous evening, a developer's meet up took place, giving everyone a chance to discuss their products and make more connections before the main event.

Speaking to Simran he informed me that the best is yet to come and wants to keep moving forward during 2023 and beyond. Exciting times indeed!



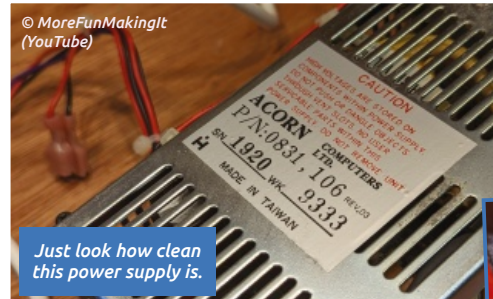
Walkies had a lot of interest, but who can resist dogs?



Bib Goes Home is a unique take on the pop-up book.



Motherboard exposed.
Super clean and tidy.



© MoreFunMakingIt
(YouTube)

Just look how clean
this power supply is.



Unboxing the Master after
its journey from Lee.



The BBC master with its top off, revealing
the untouched minty goodness inside.

© MoreFunMakingIt
(YouTube)

THE STORY OF MY MASTER

- The BBC Micro's big brother gets a look in

Anyone following me on Twitter or YouTube will have seen my mint condition/brand new BBC Master. For those that have not, I thought I'd pen this article to tell you all about my BBC Master adventure.



This is everything that was in the original box.
The user guide got a little crushed, and yes, that
floppy drive does work.

During the August bank holiday of 2022, while visiting Ian, a close friend of mine, he gave me a box. In the box was a BBC Master microcomputer. While handing it over, Ian said to me "Remember that BBC Master you gave me years ago? Well now you're into retro computers you can have it back."

Casting my mind back to the late 1990s/

very early 2000s, I remembered how this boxed BBC Master had come into my possession.

Another good friend of mine who lived next door to me at the time had been helping someone out by storing items from a house clearance in his garage. His garage had filled up so he asked me if I could take some items for him. I did, and a box containing a boxed BBC Master was among them.

Eventually homes were found for all the stored items in his garage, and most of the items he'd placed in mine, save for the Master. "Do you want it?" he asked me one day. I said yes without really thinking, but some time I changed my mind as I had no space for it, and was more interested in then current computers such as the recently released Apple iMac.

So knowing another good friend of mine, Ian, had cut his programming teeth on BBC Micros back in the day, I asked him if he wanted it. He said he'd take it so I handed it over.

Little did I know after that, he stored that machine in his loft, and over the space of



© MoreFunMakingIt
(YouTube)

The original CMOS batteries, leaking, but the outer
wrapping prevented any leakage into the Master.

20 years moved house three times where the BBC Master was moved from loft to loft, never coming out of its original box.

So now we fast forward to that August bank holiday weekend in 2022, and I am now the proud owner of a minty fresh BBC Master, with its original box.



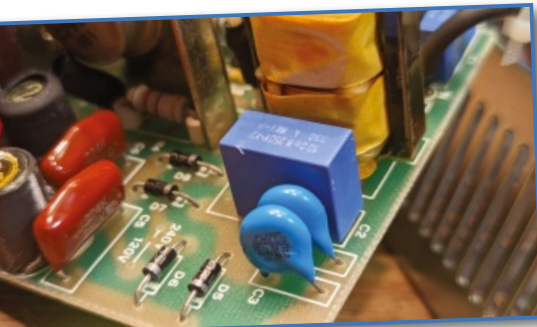
© MoreFunMakingIt
(YouTube)

The power supply stripped down, and in great shape.

By Keith Elcombe

 www.ya-retro.co.uk

 www.youtube.com/@YawningAngelRetro



Should these be replaced?

When I saw how clean the machine was, I did an unboxing video for my YouTube channel.

This machine had NEVER been touched by human hands. Even the plug was still firmly placed in the polystyrene box inserts.

At some point in the machine's life its box had been opened, as the original Welcome Guide manual had been crushed under the weight of a used 5.25" disk drive someone had stuck in there, but thankfully the Master itself was unscathed.

You can see the unboxing video at: <https://youtu.be/6TY17QhtaMo>

Despite being desperate to power this machine up and see it working, I opted to be cautious based on the fact nobody should be powering up a 30 year old retro system without checking out the innards and electrics first.

It was with this in mind that I contacted Lee from the YouTube channel MoreFunMakingIt (Visit Lee's channel at: www.youtube.com/@MoreFunMakingIt) to see if he'd be up for the challenge of checking the machine out/replacing caps etc.

Lee agreed and I sent the machine to him, boxing it up not only in its original box, but another box around that with plenty of padding. It was a nervous 24 hours waiting for the Master to arrive with Lee from my house, but arrive it did, and unscathed from the trip. I should add that when sorting out shipping for it, I'd insured it for a silly amount of money, knowing that if it went missing or was damaged beyond repair, I'd never replace it with a like for like item given how rare it was in this condition. Nervous times!

So with the machine in Lee's capable hands, he set about taking it apart and getting ready to replace something... but the machine was pretty much in mint

condition inside! Not even any dust. It looked like this Master had never been used, let alone switched on. It was immaculate.

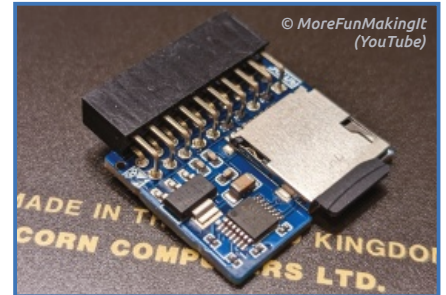
The only thing that needed changing was the CMOS batteries which had leaked, but due to some cunning engineering on Acorn's part, they were encased in a plastic sleeve, so the evil battery juice was contained in there, keeping the machine free from harm. Genius. (Ed. - "If only more manufacturers had thought of this")

After changing these out, Lee checked the power supply for RIFA capacitors (a known issue on BBC power supplies. Old RIFAs tend to explode after they dry out with time) but as it didn't contain any, nothing needed changing here. To all intents and purposes the caps in there were brand new.

With this all done, the machine was powered up... and it came to life, working as intended. This was cause for much celebration!

Lee then obtained an MMFS SD card solution for the machine, and this added the MMFS ROM to one of the spare ROM slots. With this in place the Master could access software via a micro SD card in a community created PCB located in the user slot underneath the machine.

One thing was noticed while the machine was in bits, and that was the keyboard. This was a Cherry membrane keyboard, and it dated the machine to around 1992 or 1993, pointing to the fact it was an end of line machine built shortly before production of the BBC Master ended. The keycaps were more



The underside of the MMFS solution, showing a micro SD card.

akin to PC keycaps, and not the usual italicised keycaps of earlier BBC micros.

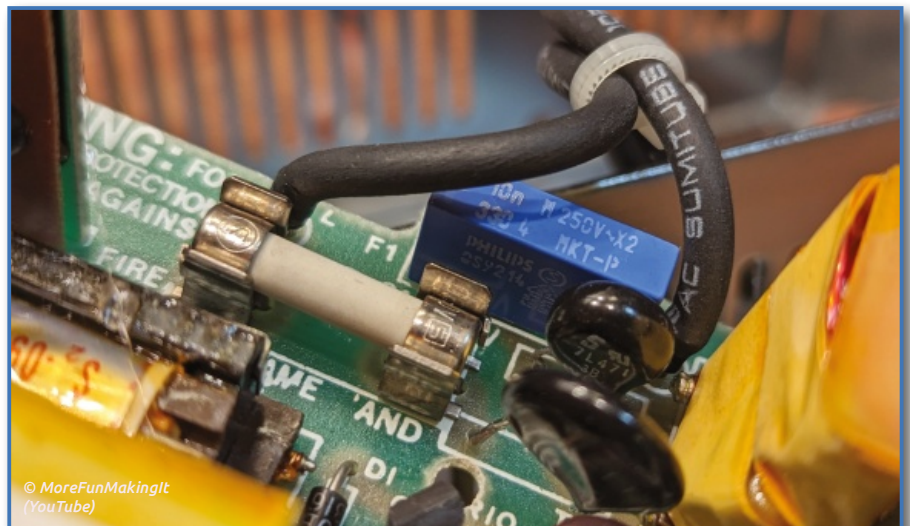
With the Master up and running, and safe in the knowledge nothing more needed doing to it, Lee sent it back to me.

24 hours later it arrived safely at my house, thankfully completely unscathed, so I was ready to play with it.

Having produced a video about the Master before sending it to Lee, I duly created another one, showing the machine up and running, and of course showing my delight at having this wonderful machine back in my life. You can see this at: <https://youtu.be/I3U22ZmNVEU>

I was looking forward to exploring it fully, and that has been what I have been doing since its return. First off was getting the Master version of *Elite* to run on it.

But that's a story for another day... in the meantime the Master is now proudly displayed as part of my growing retro computer systems collection. I'm looking forward to more adventures with this machine as time progresses.



Even the fuse looks brand new.

SO YOU WANT TO BUY A PC? (PT. 4)

- Omni-shambles doesn't even cover it...

If the 1970s were the first decade of home computing and the 1980s its natural follow up, then the 1990s could be justifiably called its difficult third decade. In part three of this series, six formats vied for your digital affection. However, by the time the Millennium Bug didn't end civilisation in 2000, that number would be cut down to two (and at times, seemed like only one). So what happened?

As has become tradition, we begin with Amstrad. They continued to sell the PCW 9000 series at the same price they were introduced at. That was silly. Even sillier was that even by 1994, their prices still hadn't dropped. The market had moved on and, as beloved as the PCW was, it had ceased to be a cost effective productivity option. Barring the weird PcW10 of 1996, that was the end of the PCW line and Amstrad in the general computing world too. Their NC100 and NC200 portable computers were interesting side ventures but their later e-m@iler was, well, pretty crap.

Atari's ultimate fate arrived much more rapidly. After finally getting the Falcon ready to launch, they missed the 1992 festive period and 1993's sales were lacklustre. Increasingly cash strapped, they *temporarily* left the computer market (uh-huh...) to focus on games consoles – in the face of the epic 16-bit struggle between Sega and Nintendo, it was never going to work. The remaining ST stocks were sold off at fire sale prices (the original ST hit £149 and the Falcon £399). Atari themselves failed to do the maths with the Jaguar console and eventually *merged* with a hard drive manufacturer. The name lives on, but that's a tale worthy of a daytime soap opera.

Acorn's gentle perambulation around the home market ended when the A3010 died a death in 1994. Lopping £100 off the RRP didn't help and the remaining stock was sold off the following year for £140 (ex VAT). Acorn's problem was that they were only now targeting the same market

Maximum PC/Acorn computers					
All prices are for one-month minimum. On-site calls + materials. Callings include on-computer systems, two PCs, custom software, and training. Please note that the 1080c model is available.					
Computer Model	With AKF600	With AKF91-N	Processor	Monitor	Price
A7000 4MHDS40	\$1029	\$1469	N/A		
A7000 4MHDS40+8XCD	\$1159	\$1599	N/A		
RiscPC600 4M+D340	\$1275	\$1675	\$1030		
RiscPC600 4M+D340+8XCD	\$1375	\$1775	\$1130		
RiscPC700 5M+D340+8XCD	\$1535	\$1935	\$1280		
RiscPC700 5M+D340+8XCD	\$1625	\$2000	\$1380		
RiscPC700 10MH+D101	\$1750	\$2100	\$1630		
RiscPC700 10MH+D101+8XCD	\$1850	\$2200	\$1730		
Dedicated I/O for lynx/mf-917E or Add I/O for lynx/mf-9017E					
StrongARM (when purchased with a RISC before Jan 97)					\$197
2020 Finance on Acorn computers					
\$50 deposit (min) & \$0 interest-free monthly payments. Minimum cash \$700. Maximum loan £2000. Available at status: Finance only applies to Acorn branded computer systems. Add other items to deposit. Any new Coming Soon! The Acorn NetStation (Jan 97)					

Over £1000 just to start at the bottom rung.

[illegible]

Within 18 months, all of these machines would be discontinued.

that Commodore and Atari had effectively conquered several years prior. The A3020 and A4000 also departed once it became clear they did not meet new European electrical regulations, with production ending in 1995. That year saw the launch of the A7000, a new, mid-tier machine which gave users a 32MHz ARM system on a chip with 2MB of memory. Priced at just over £1000, it wasn't a bad machine, but it meant that there was nothing left at the low end. Nor was the A7000 high-end either, but there was another...

That marvellous piece of industrial design hit the Acorn market in 1994. Powered by the new ARM 610 chip and featuring what could be the best case ever to grace a desk, the Risc PC was competitively priced against the 486 machines of the

WELCOME TO THE FUTURE

Member of
Acorn Computers

RISC PC from Acorn offers all the traditional strengths of RISC: processing, and a great deal more, at a remarkably affordable price.

- A wealth of powerful applications software from personal productivity tools to true workstation
- Low-cost access to EDO and 50 industry applications
- Lightning fast manipulation of still and moving images

Be still my beating heart (swoon).

[illegible]

It seems like they're desperate to get rid of them...

time. £1,249 (ex VAT) got you the base machine with a monitor, and dealers soon reduced it by £50. There were improved Risc PC 700 models in 1995 starting at £1,360 (ex VAT) and A7000+ machines in 1997 for £1,100 (ex VAT), but by this point, the writing was on the wall. Not even the 200MHz StrongARM chips for the Risc PC helped, and they pushed the entry level price up to £1,400 (ex VAT). Never a consistently profitable company, Acorn cancelled the Risc PC 2 (codenamed Phoebe) in September 1998 and a few months later, the company itself was dissolved to release its shares in ARM. RISC OS survived and continued to develop slowly, aided for a few years by the likes of Castle Technology, RiscStation and Microdigital offering new hardware. Those companies gradually faded away, but the

[illegible]

What everyone wanted in 1993 - the A1200, not the other one.



OS continues to thrive on single board computers to this day.

What about Commodore? The Amiga 1200 was reasonably popular even if precious few AGA-only games were released for it. The last gasp saw the CD32 launch in 1993, but after years of corporate tomfoolery, the company liquidated itself in April 1994, taking with it one of the most talented computer engineering teams in the world. After a failed buyout attempt by Commodore UK, the bones of the corpse were picked up by German PC retailer Escom. They brought the A1200 back (under the Amiga Technologies name) but by now, this was ageing tech with 1992 prices. After Escom exploded spectacularly in 1996, taking with it the last, best hope for the Amiga, there were numerous suitors for the OS but not the existing user base. AmigaOS survived, a passionate following kept the market going, and there is still an active Amiga community to this day. If only there were an active Amiga(!) magazine to find out about this stuff...(Ed. - "Check out our sister magazine, *Amiga Addict!*")

Apple is still with us, but not before trying to dive into oblivion with a story that makes Commodore's seem like a tale of ordinary computing folk. We last left the fruity little tinkers in 1992 with a revised range of machines and a pricing structure that wasn't bad for them by historical standards. Then it all fell apart.

Firstly, they targeted the PDA crowd with the Newton. This wasn't as flawed as people remember *but* it needed a few revisions before it became fairly usable.

Simply a wonderful, hard-done-by machine.

Wow! They were almost affordable...

They also re-branded the desktop ranges. Instead of the Classic, LC and II, in came the Performa, Centris and Quadra, although the Centris name barely lasted a year. This was just a teaser of things to come...

Ah yes, the years of product incontinence. 1993 saw Apple launch 29 separate Mac desktop models, not all of which made it to the UK. 1994 saw 32, including the new Power PC toting Power Mac range. That was also the year of the clone strategy. Companies such as Motorola (the Starmax brand), UMAX, Daystar and Power Electronics brought cheaper and more powerful machines running Mac OS 7 to the public. Rather than grow the Mac market to any large degree, they were seen as cannibalising Apple's sales and reducing its profitability massively. In response, Apple continued to shower new models - 41 in 1995, 42 in 1996 and 32 in 1997. Apple battled its own stupidity by cancelling some licences and restricting use of later versions of the OS, but their biggest issue was in developing a successor to System 7. Long story short (too late?), they picked NeXT Computing's NeXTSTEP OS, which meant Steve Jobs was back after being ejected from Apple in the 1980s. Both the clone program and the Newton were cancelled. Apple then slimmed down their range to the iMac, iBook and PowerMac. Between 1998 and 2000, the same number of models launched in total as had been in 1997 alone. This was a comeback tour a 1990s boy band would be proud of.

As the Millennium approached, the ST was dead, the Amiga had been relegated to cottage industry status (no matter who held whatever licence rights), RISC OS was heading that way and the Amstrad

...I did say almost.

computers were a fading memory. Apple was the only survivor (just) and was about to turn the corner on its way to Bond villain like world domination.

As for the humble yet mighty DOS PC, that was buried under the behemoth of Windows 95, an operating system so unique and powerful (it was neither, gentle reader) that it just had to become the de-facto standard. After 98, Me, XP, Vista, 7, 8, 10 and the latest 11, it's still kicking strongly in the face of competition from macOS, Linux (various flavours), Chrome OS and Android (both Linux based anyway).

The post-2000 computing world evolved rapidly as, with the exception of power users, desktops gave way to laptops, and new form factors such as smartphones and tablets challenged the traditional ideology of computing. However, that's far too modern for this retro-themed magazine so I'm off to bask in the warming glow of a mono-green CRT.

The more things change, the more they stay the same.

— FASTLOADERS - C64 ROCKS —

- Gareth experiences the spirit of “processor punk”, turned up to 11!



Is this a double retro? A vintage format on a vintage format.



There is nothing like listening to the music live!

When Paul asked if there was anyone who was familiar with the Commodore 64's songs, I had to raise my hand. Those sounds were a part of my early teens and to be honest are still with me today. This makes me perfectly placed to review a new CD album which turned up at PA towers. OK, maybe a bit hyperbolic, but I wouldn't expect the average Spectrum owner to appreciate such audio goodness. (Ed. - "Ouch!")

What did I have in front of me? Three CDs of Commodore 64 tunes by Fastloaders, a remix metal band based in Bergen, Norway. I think a lot of us will be aware of them from their previous releases like 2016's *Ninja Musicology* and 2018's *Rock Hubbard* amongst others. The band members are guitarist Jarle H. Olsen, drummer Bjarte K. Helland and keyboardist Kjetil Nossum.

On this album, you have new takes on songs from games like *Ghosts 'n' Goblins*,

Way of the Exploding Fist, *Wizball* and *Sanixion*. In total, there are 55 tracks from across the best-selling 8-bit machine's life. Initially launched on Kickstarter and successfully funded by 646 passionate fans, you can now pre-order the album for yourself. If you favour the physical (and don't we all?) you can pick the three CD set up for £29.99 + P&P. A digital download version is available for £19.99.

I was a little bit nervous about doing this review. You see, I love my SID chip tunes. They take me back to my teen years and the awesome time I had with my brother on our trusty breadbin. Don't get me wrong, I do enjoy remixes and new takes on old music. Daft Punk, Gorillaz and Linkin Park all have remix albums on my

iPod. Even groups like Nouvelle Vague who do some epic covers of new wave classics are a favourite of mine. It was the idea of listening to new tunes that did not align with my misty eyed memories that was a little nerve wracking.

Well, that was a misplaced fear. This album did nothing but enhance my musical appreciation of these old songs. The music is in a style similar to classic rock legends Joe Satriani, Gary and Vinnie Moore. Guitar led and reminiscent of the late prog-rock era, mixed with some early 1980s synth. It is a genre that does have a place in my library of music.

I fully appreciate that the entire album is instrumental. The human voice is an



Rocking out in the local parish.



Back in time. 2018 seems so long ago and the gig looks like it was epic. Wish I'd been there.

amazing instrument, but it would be completely useless here. The first songs that stood out to me were those that I knew well: *Commando*, *Bruce Lee* and *Turbo Out Run* for example. They were perfectly fleshed out to be the full fat versions of the songs I always imagined in my head. I have to say the new arrangements by the band are top notch, filling in the gaps of the three channel SID with restrained expertise.

Some of the tunes were completely new to me, so I took a quick trip to *Sidplay3* on my hard drive to listen to the originals before appreciating the new version. I think all remix songs should be listened to this way. The two feed off each other to create a greater whole.

I have to highlight one of my favourite tunes on the album, *The Great Giana Sisters* on disc three. Chris Hüelsbeck produced a masterful set of tunes for the game. Well, Fastloaders took song five and pushed it into rock opera territory, worthy of Jim Steinham and Meatloaf.

Starting off with a haunting piano riff, it then kicks into a frenetic rock anthem similar to "Holding Out for a Hero", finally coming back down to the piano to leave chills on my spine. Just magical.

If you like music, especially guitar led music, you should pick this up. That it is linked to our vintage machines of the 1980s and 1990s is an added bonus. So head over to c64audio.com to pick up your copy. 🎧



The gear may be modern but the origins are as clear as day.

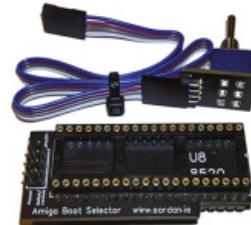
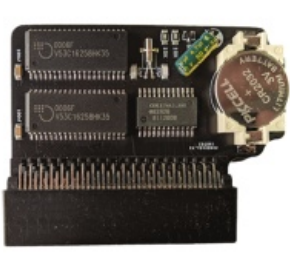
PIXEL
ADDICT

NEW BINDERS

- Preserve your Pixel Addicts.
- Holds 12x A4 magazines.



BUY NOW AT: PIXEL.ADDICT.MEDIA



**and
much
more...**

WWW.SORDAN.IE

- * We post all orders ALWAYS within 1-3 working days.
- * Ships DIRECTLY from our warehouse based in Dublin/Ireland.

commodore

plus/4

- Remembering the machine Commodore didn't know what to do with

By John McDermott

As a schoolkid in 1984, if you hadn't yet managed to talk your parents into buying you a home computer, you were probably well into your campaign to do so. The computer you were likely after would have been a Commodore 64 or a Sinclair Spectrum, in the main those were the two big competitors of the time (or maybe an Amstrad CPC at a push) - and you wanted them for their games! If you were to have a glimmer of hope in getting your parents to spend hard earned cash, you'd have played the *it will help me with my homework* card and extolled the colour graphics and in the case of the C64, it's wonderful audio abilities to be creative with. You *definitely didn't want it for the games*, although they were a nice bonus!

It's Not For Games – Honest Mum!

Unfortunately some kids played the homework card too enthusiastically, because parents with an eye on the purse

strings, wanting to get their child a home computer for Christmas, but also not spend a fortune ended up buying something that was a proper home computer that didn't break the bank, and they came home with that Christmas surprise of a Commodore Plus/4!

I saw this first hand when my friend Grant, who had done his best to secure a home computer for Christmas, avoided an early scare of a potential Acorn Electron (which his dad was sure would be wonderful for school) only to end up with the Plus/4. He was devastated. He had been desperate for a Commodore 64, so it is with this memory firmly in my mind that we'll dive in and take a better look at the Commodore Plus/4. Was it as bad as everyone remembers? Grant would say an emphatic "Yes!" to that I'm sure, but that will have a lot to do with not being able to play the same games the rest of us were raving about, or to share games between us and he very much felt

ostracised by having the Plus/4.

What Was It All About Then?

The Plus/4 was released in the summer of 1984 for US \$299 / £299 and it looked brilliant! Dark grey case, light grey keys, vent ridges, cursor keys on the top of the case, it very much looked the part and it looked serious. It had a matching tape drive (Datasette) and if you could afford it, a matching 5.25" floppy disk drive.

Clocking in at a reasonable (for the time) 1.76MHz with 64KB of RAM, a much improved BASIC over the C64 and a built in machine code monitor, the Plus/4 was ▶

*A full computer setup for under £100!
Where do I order!?*



also a departure in architecture from the Vic 20 and Commodore 64, moving away from the MOS 6502 based processors and VIC chips to the new MOS TED architecture which would control a MOS7501/8501 as well as other functions of the machine. TED was an acronym for *T*Ext *D*isplay which described not only the processor, but also the family of computers which along with the Plus/4 also included the Commodore 16 and Commodore 116. The Plus/4 got its name from the four bundled applications which lived in ROM, namely *Word Processor*, *Spreadsheet*, *Database* and *Graphing*, all accessed almost instantly via the four function keys running along the case above the number keys.

Jack Tramiel had a strong vision for the TED family. There were two more prototypes created; the C364 (a larger version of the Plus/4 with numeric keypad and speech which would have been the flagship machine) and the C232 (similar to the Plus/4 but with only 32KB RAM). The prototypes did not make it into production, and the range came to an end with the Plus/4.

With the exception of the 1541 disk drive



and printers, the Plus/4 would further differentiate itself from the C64 and VIC20 by requiring TED family dedicated peripherals. Cassette players or joysticks (and other peripherals) for the other machines were incompatible with the Plus/4.

It is estimated that the Plus/4 sold approx. 827,000 units worldwide.

Commodore's desire was for the Plus/4 to be successful as a business machine, but no-one really knew that since it wasn't marketed properly after the departure of Jack Tramiel and it sat unwanted on shelves before being repackaged and sold for £99 in a bid to shift the stock. The Plus/4 did have some games released for it, but with no hardware sprite capability it was never going to take off as a gaming machine, but then again, this wasn't what it was designed for.

Poor sales and user take-up (not to mention the departure of Jack Tramiel) would see the termination of the TED product line during 1986. I talked to Bil Herd (principal engineer) about his memories of those years and his involvement with the Plus/4. This is what he had to say.

Interview with Bil Herd

What was Commodore's vision for the Plus/4?

"So, the Plus/4 as I understand it, and I got this pretty straight from the horse's mouth through my boss Shiraz Shivji who called me in, and he showed me the Timex Sinclair Spectrum and said, 'this is what we're going after'... Commodore considered the VIC-20 the TI (Texas Instruments) killer. They considered the

C64 the Apple killer, and now they wanted a Sinclair killer. Jack did not like somebody owning a business space that he wasn't in, so he wanted that cheap business market. A C64 was still between \$200 and \$300, so if he could get a \$79 machine or even a \$49 machine (the C116), that was his vision."

Did you have much input into how that vision should be realised?

"No, I started when it was already envisioned, and I was shown kind of what it would be and the hardware here was the TED chip, so the computer was truly as close to a single chip computer as we could get, so it was the attributes of the chip that defined the attributes of the hardware. I came along and I became the custodian of the design. In the later versions, I did add a 6551 to what became the Plus/4. I added a real UART to it, little things like that. The function ROMs, those started from an idea in our area, but really it was Jack Tramiel's vision to the point where they had a printer and new monitors and it was going to be a whole family of computers, not just 'here is a computer.'"

You mentioned the 6551 chip which you added. What did that do?

"So, that's a UART (Ed. - "Universal Asynchronous Receiver-Transmitter, used for timing"). In the Commodore 64 you can only go to about 1200 baud because you *bit bang* the serial port. The processor asks 'oh make a high, make a high, make a low, make a low' and the UART says 'just tell me the bytes, I'll send them for you,' and so it was a real UART, it could go at true terminal speeds."

Did the Plus/4 have a target audience?

"People didn't want to spend a lot on a computer. Originally, we looked at it as a business machine. If you wanted sprites and really cool sounds then buy a C64, but if you wanted a beautiful well-designed case (designed by Ira Belinsky, who also did the DEC rainbow and sadly passed away when we were young) then you bought the Plus/4.

The target audience was someone who'd buy a \$79 computer, somebody building up office space and buying it for the 121 colours. And then the C116 was kind of an outlier. That was meant for people who didn't want to spend more than \$49 to try a computer."

How was it promoted?

"Commodore during that time, and this



Bil explains the concept of the TED machines.



The CES Booth circa 1985. It was supposed to look like a battleship...

is a *Tramiel'ism*, came up with the idea of offering \$100 off your C64 if you sent us somebody else's computer. We got *lots* of Sinclairs still in their boxes. People were spending 50 bucks sending it to us for \$100 off! And then, when the promotion was over, we just cut the price by \$100! It was brilliant. It got all those computers off the street. It was the death knell for the TI99 in my opinion."

Do you think the existence of the Commodore 64 hampered the success of the Plus/4?

"No, it was a different market. The problem was that Jack left, and with Jack leaving, Jack's vision left. The people in marketing weren't real-good at marketing it. That's not the kind of company Jack built, right? They were in different areas. They weren't meant to compete."

What were the differences between the vision and the released machine?

"Well, when Jack Tramiel left, the marketing department didn't know how to market the Plus/4 and so, marketing is like, 'Wow, we really like the C64, can't we treat this as another C64?' So they jacked the price up to a C64 price and then they added *that* software to it. That was done outside of me. I didn't sign off on the software. I've never actually used the software that's built into the Plus/4, not even once."

The four applications were a new addition to the machine then?

"It was marketing that went out and made a deal with the guy and got his four apps to put in there. I had designed the function ROMs where those apps would go. So, I knew something was coming. The TED team who came up with those function ROMs came up with something really cool,



Classic photo of unpacking for the show. Note oscilloscopes, eeprom burners and a lot of cables!

the idea was, open your computer, put these ROMs in it, and it can do even more."

The Plus/4 looked fantastic and quite different to other Commodore machines. How did that design come about, and did you have any say in the final design?

"Oh, it's beautiful. It's a piece of art and even though the 116 on the inside is even nicer and has the Chiclet keyboard, to me the Plus/4 is still a piece of art. The connectors all just fit. But people say 'Well, why did you have that silly joystick connector.' Well there was no room here for two of your 9-pin joystick connectors, you know? This was the Raspberry Pi of the day, right? Except that we had a keyboard and power supply included."

Unfortunately, the Plus/4 wasn't

seen as a success (in the UK anyway). What would you attribute to that?

"No marketing, no direction, no leadership. Jack Tramiel was gone. I obviously have an opinion on this, right? Jack Tramiel was gone, period, and without him, the company was floundering, and we floundered for years. It was painful."

Seems to have been a theme since Jack left? Commodore making poor decisions and having a lack of leadership?

"Yeah, I got to work there while it was still Camelot though. So, I'm from that rare group that worked for Jack, and then without Jack... so I'm in that middle part. I call it act two of a Greek tragedy in three acts! Right?" ▶



Bil Herd with programmer Judy Braddick in the Las Vegas airport for CES85.

Notable mentions

A few notable mentions should go to *Pets Rescue* from the prolific Psytronik Software, a modern arcade/adventure game with beautiful graphics and addictive gameplay.



Another notable platformer, again from Psytronik Software, but from 2010 is *Adventures in Time*.



Pet's Rescue:
www.psytronik.net/newsite/index.php/plus4/101-petsrescue
Adventures in time:
www.psytronik.net/newsite/index.php/plus4/17-ait

In recent news (as reported by GamingRetro), the awesome *Lemmings* is coming to the Plus/4. www.gamingretro.co.uk/iconic-amiga-puzzler-lemmings-coming-to-commodore-plus-4/



Out of interest – when did you leave Commodore?

"1986... I was there from 1983 to 1986-ish."

So just before the Amiga 500 was launched then?

"Yeah. The Amiga came out about the same time. I was put in charge of the European version of the Amiga, but I was only in charge for a week because before that my boss didn't know I was quitting."

The A500 I think was done by George Robbins and yeah, it was running in the background. I was friends with George, one of those people, you know, that I would seek out if I had a question, and you wanted other opinions, so we were a pretty tight group, even in our different divisions. All our offices were right next to each other, cubicles. This is when the early TED was coming out, the in-flight product was the LCD machine. I don't know if we had even talked to Atari / Amiga at that point yet.

So we were working on the LCD machine and then I transitioned to the 128 and Geoff Porter took over the LCD machine and then the revelation of Amiga happened pretty much for me during my 128 time."

What should/could Commodore have done better?

"Just market it. Yeah? They didn't market the Amiga either. I never held a grudge against marketing. They just didn't know what they didn't know and didn't know any better. We didn't know what to do with it anyway, and we were making the stuff up as we went along. It's easy to look back at the eighties and say 'Oh, I shoulda, woulda, coulda', but yeah, people would trip over a great idea, not know what it was back then because we didn't have the history. Yeah, hindsight..."

What happened to the C364?

"The 364 is a talking version of the Plus/4. And we had the guys that did the TI's *Speak and Spell* to do it. So, we had major talent going with that and it died when Jack left. The whole concept of a family of computers died. The reason it talked is it was meant to go with *Talking Magic Desk*, which was developed by John Feagans. We had a desk motif before the Macintosh and whatnot, and you could say 'throw file away' to the computer

and it would take the file away, you know, so it had a desk motif to it and speech was a part of it."

Would any of what you had learned in creating the Plus/4 and TED range of computers apply to your creation of the C128?

"Oh yeah. Yeah. It was great practice for the 128. The thing is we/I knew how to make a product, but we needed to get all the pieces oiled and in place and beat it into submission. We were in the MOS building and then we moved departments, got twice as big, same number of people doing the work, but we learned the process so that way we were able to bang the C128 out in literally five months."

If you had been given carte blanche to create a different machine, what would you have done?

"The C128. Nobody stopped us. There was no management. They were gone, right? Or hiding under their desks and stuff with the purge that happened. Fred Bowen and I got together, and we just said 'Let's do something that is C64 compatible' because we did feel bad about the TED not being C64 compatible even though we liked the TED for what it was. Then at one point, management walks in and we're playing like *Joust*, *World War* or something like that in C64 mode, but it's colourful and it sounds wonderful and they're saying 'you guys are geniuses, this is our new computer'. And so the C128 happened by osmosis. Nobody stopped us at all. We just did it. It was designed by engineers for engineers."

I have discovered that the Plus/4 has a really active fan base of enthusiasts. Do you get involved or contribute to that at all?

"No, I really haven't, other than I'll write a forward for a book or someone will show me something and I'll be



John looks happy showing Bill his own Plus/4, that "just happened" to be lying around.



The imposing 1985 CES Booth.

impressed. But now, I like new computers!"

You published a book in 2021 (*Back into the Storm*), do you have any plans to write again?

"First off, I do want to say that without my co-author Margaret Morabito there wouldn't be a book without her helping me to make it into English basically, and you know, the book was everything. I'm getting old, my memory has started fading suddenly and I just wrote down every story I could think of and so the book's a little scrappy. It's kind of a wandering frame of consciousness, but it's every story I could remember."

Thank you Bil for your insights to the Plus/4 and TED family of computers!

I also asked renowned pixel artist Stoo Cambridge of Sensible Software if he had worked on anything for the Plus/4 or TED machines. Stoo said "Alas no, but I loved the colour palette on offer and those extra graphics modes that my humble C64 could only dream of matching. The case design and colour choice was also great for the time and it amazes me Commodore didn't think to create dark case versions of their other models, a dark C128 would have been awesome as would an A500 later on."

Given the hardware, it's impressive to see what can be achieved today with the current sway of new releases, which are very impressive. I'd love to work on it if the opportunity presented itself."

So, Was It Bad?

The Plus/4 wasn't a bad machine. Just mis-marketed. The TED family of computers

clearly had a target audience that wasn't realised in the UK by the sheer fact that they sat on shelves next to the Commodore 64, Sinclair Spectrum, Dragon 32, Acorn Electron and so on as a potential cheaper alternative, but one which would clearly never be able to be the desirable gaming computer that kids wanted that would *sometimes* help them with the homework!

What is evident in my conversation with Bil is that the Plus/4, and the other machines of the TED family were very much developed for the more serious computer enthusiasts of the time. The C16 (or C116) would have been more of a Sinclair ZX81/Spectrum challenger if you'd wanted a good keyboard, a decent BASIC interpreter and nice colours. It was a massive improvement on the Sinclair machines, having much higher build quality and usability, but it just didn't have the quality of games that would elevate it to the wish lists of kids at that time. Most games that were developed for the C16 which would *work* on a Plus/4, but games were rarely developed to take advantage of the enhanced capabilities of the Plus/4 in isolation.

What Happened Next?

The Plus/4 may not have set the world on fire when launched but today it is still a collectable machine. It is a very capable 8-bit micro that still looks great on any vintage computing enthusiast's desk. Second hand prices for them remain reasonable (for now!) and there is a very active enthusiast scene, developing games, demos and expansion hardware.

On the hardware front the Plus/4 now benefits from developments in software loading with the SD2IEC SD card solution.

This emulates a floppy drive and allows software to be loaded from SD card, as well as the more cycle-accurate solution involving the ever adaptable Raspberry Pi in the form of the Pi1541. We also have better video connectivity with new composite and S-Video cables being made, and adaptors which allow the computer to use more traditional 9-pin joysticks via the mini-DIN socket and also a new DiagRom cartridge is available to help diagnose hardware issues for the machine.

The most active community for the Plus/4 computer would be Plus4World (<https://plus4world.powweb.com/home>). This community is constantly updating the forum with new demos, applications and games, along with hardware advice for running the Plus/4 in a modern world.

In summary, I personally think the Commodore Plus/4 is a great addition to anyone's vintage computer collection, and yes, I do have one in my collection too. ►

At the Revision get-together this year, a most wonderful demo called *TED Vibes* was created by KLeeder to show off what the TED sound chip could produce if enough ingenuity and talent was applied.



Acknowledgements

- www.newstuffforoldstuff.com - Hardware and software for the Plus/4
- Terrance Ryan for photos used from C128.com
- Graham Thomson for Plus/4 boxed picture and information on the Plus/4 community
- Plus 4 World - <https://plus4world.powweb.com>

Commodore Plus/4 Top 5 Games

The Plus/4 certainly wasn't developed to be a games machine, especially with an inferior sound chip to that of the C64 and the lack of hardware sprites. Despite this, there were some very good games created by talented developers over the

years who could eke out every ounce of the Plus/4's resources to produce graphically and audibly impressive games. Below I've listed some of my personal favourites, if you know of any other gems I've overlooked let us know: pixel@addict.media

Lykia – The Lost Island

Psytronik Software
(July 2022)



Upon loading the game, we are treated to a nice full screen animated intro of seven cloaked wise women entering a moonlit wooded glade to perform an ancient ritual. Magical lightning crackles through the air and we're transported through space and told to "Wake up" (clear spoken speech!) to what looks like an Earth style planet.

This takes us to the game's start screen and we can begin our journey. Taking on the role of Nora, we begin the day in her house on her 16th birthday. After a quick chat with the parents and gathering her strange birthday presents (as well as a

quest to collect Apogy fruit for her mother), we wander outside to be met by a magician who appears out of nowhere to tell Nora he's here to help. He advises her to use the Navigator she received as a birthday present and so begins the questing, which leads to Nora having to save the world with the help of her good friend Gomez and the Druid Eria.

The game adopts a top-down visual approach like the early Zelda games and makes superb use of the colour palette of the Plus/4. As Nora wanders the land, the developers have managed to include background animation throughout (moving cloud shadows on the ground, butterflies fluttering around, deer grazing on grass etc) all to a nifty questing soundtrack which makes superb use of the limited audio of the Plus/4 whilst still managing spot effects as Nora explores.



The animation and graphics are superb, with the game looking much more like a C64 release with more colourful graphics. The only gripe I would have is the slight pause when moving from screen to screen.

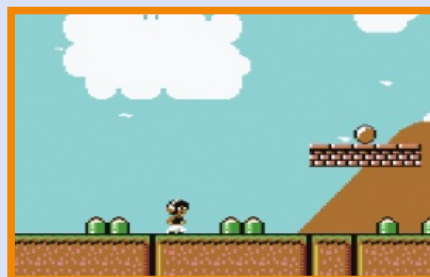
Presented on two physical disks (utilising both sides of each) when purchasing the beautiful retail package (or four disk images in the download version), this is a highly polished game, synonymous with what we expect from Psytronik these days.

Although developed for the Plus/4, the game will work on an expanded C16, and it's also worth noting that the game is also fully compatible with the C64 mini/maxi machines.



Pets Rescue

Psytronik Software
(February 2018)



Donning the lab coat of Dr Andrea Brown (AKA Afro Dree when she's rocking out to her beats!) in her veterinary centre, you are in charge of rescuing pets which have become mutated following a large explosion due to a failed experiment by her Research Assistant (Dr. Edward Vil).

Available in both physical disk and digital download versions, this is a great platform game, very much in the spirit of *The Great Giana Sisters* and just as addictive (and likely to have caused much the same lawsuit if released back in the day). It features lots of colourful graphics and a nice soundtrack, along with smooth(ish) animated parallax scrolling which is indeed impressive on a Plus/4.



Alpharay

Psytronik Software
(August 2019)



Alpharay is, at its heart, a Plus/4 version of *R-Type* and is just as hard! It's impressive to see the variety of enemies and smooth scrolling present and is at least as good, if not better than the C64 version of *R-Type*. The game is colourful and intuitive as you manage your craft through the daunting number of enemies you need to battle. Scrolling is smooth and ship movement is responsive. As a shoot 'em up it's the best I've seen on the Plus/4.

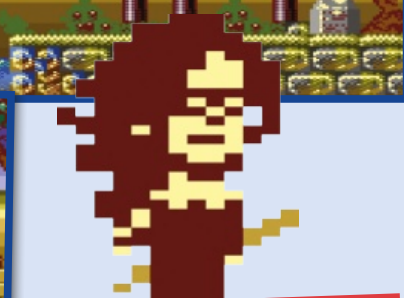
As with other Psytronik games, this is available for an expanded C16 as well as the Plus/4 in beautiful physical disk and digital formats.



The Lands of Zador

Psytronik Software
(2016)

Psytronik follow up their popular *Majesty of Sprites* game with another classic from the Bauknecht team of developers with this colourful side scrolling platform game. Foreseeing a robot attack on the land, the wizard Zordan has tasked you (Kate) to return a Spellstone to him and ensure peace prevails. The usual running, jumping onto enemies to destroy them and accessing stones to speak to the wizard ensues as you navigate the world to a looping soundtrack and colourful visuals. Kate can be a little hard to control when jumping to the highest platforms, but other than that, this is yet another game that pushes the Plus/4 to the limits.



Trailblazer

Gremlin Graphics
(1986)

Not a Plus/4 game in isolation but a C16 game! *Trailblazer* was first developed on the Commodore 16 before becoming successful and ported to most other machines of the day. The feeling of speed which this game provides is astonishing for a C16. Nicely coloured squares blur past as you try to keep your sphere on the track whilst avoiding *chasms of doom* spaces. You will guide your sphere over special squares which will affect your progress and make you bounce, slow you down, speed you up and so on. The game is a simple time trial to get to the end of the level and the quicker you do so, the more points you gain. It's horrendously



difficult to get used to, but you gain a great sense of achievement when you do. There is a nice intro soundtrack but other than that the gameplay itself is limited to spot effects as you play.



Time waits for no dev...

It's clear from this list that given time, developers *could* have worked wonders with the Commodore Plus/4 and created amazing games - especially given the machine's exciting and impressive colour palette. But the Plus/4 wasn't designed for gaming and the competition in that market was fierce. Development time wasn't a luxury that software studios could afford back then, and as a result the Plus/4 was mainly used to play C16 games. It is worth mentioning that in addition to *Trailblazer*, there were some great C16 versions of games that were just as good (if not occasionally better!) than the competition. Those games would include *Kik-Start*, *Tom Thumb*, *Tutti Frutti*, *Mercenary*, *Auf-Wiedersehen Monty* and many others.

MYST

- A beautiful, yet puzzling adventure

What was the highest-selling PC game of the 1990s? Could it have been the strategic empire-building game *Civilization* from the legendary Sid Meier? Or perhaps the action-packed *Doom* from the Carmack-Romero duo? Maybe something less obvious - the city-building simulator *SimCity* from Will Wright? No, none of these. Astonishingly a different contender sold more copies than all three of these esteemed titles combined and maintained the top spot until 2002, when it was dethroned by *The Sims*. How could *Myst* achieve such success?



To understand the unique appeal of *Myst*, we must first journey back to the landscape of the 1990s adventure game. These titles typically placed players in control of a visible on-screen character, navigating through varied locations, engaging in dialogue with other characters, collecting items, and often combining these or using them to interact with the environment or other

Myst franchise timeline

1993: *Myst*
 1997: *Riven*
 2001: *Myst III: Exile*
 2003: *Uru: Ages Beyond Myst*
 2004: *Myst IV: Revelation*
 2005: *Myst V: End of Ages*



A quick turn of this and hope something happens...

characters. This gameplay style naturally encouraged a significant degree of experimentation, which paradoxically, often led to the untimely demise of the protagonist (particularly in Sierra's games). So, players often found themselves caught in an intriguing dichotomy - they were simultaneously incentivized to experiment and penalised for doing so.

Furthermore, the game interface in these classics often left much to be desired in terms of intuitiveness. Even though players were liberated from the requirement of typing in instructions, they still had to choose a particular action to perform. Most of these games provided at least two primary actions: 'use' and 'look'. The former facilitated physical interactions, while the latter delivered the character's observations on the highlighted object or character. Quite often progress hinged on the latter, compelling the character to verbalise their observations before the player could act upon them. This aspect, an inherent byproduct of the third-person narrative, impeded immersion. Players could admire and relish the game world, but rarely felt an integral part of it.

Myst offered an innovative alternative for an adventure game - the

With great details come great storage requirements

Myst consists of ca. 2500 frames, one for each location. All of them were first rendered in *StrataVision 3D* and then edited in *Photoshop 1.0*. All that content along with videos required a vast amount of storage space which was provided by the, at the time, novel CD-ROM. The success of the game helped to popularise the format as many players would buy the CD-ROM drive so they could play *Myst*.

first-person perspective. The game no longer asked players to puppeteer a character within the digital realm. Instead, they were thrust directly into the narrative, living out the adventure firsthand. They became the protagonist, thus amplifying the sense of immersion exponentially.

To maximise the immersion, high quality visuals were needed. After all, to truly *feel* a world, one must believe in the authenticity of what the eyes behold. *Myst* satisfied this demand using pre-rendered scenes, which showcased the game's exotic locations from the player's viewpoint in unprecedented detail. The stunning visuals paired with ambient sounds and engaging music culminated in a unique experience of exploring the surreal worlds.

The game interface was streamlined to the absolute essentials -



Myst is full of stunning scenery.



This time the island doesn't seem quite as inviting...

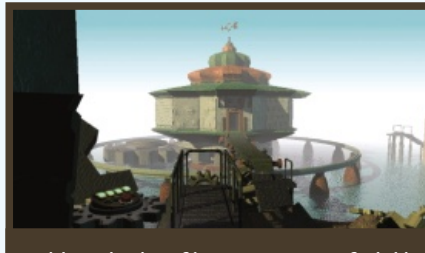


This looks promising now the path is moving.

no inventory-based puzzles or superfluous actions to perform. If you clicked somewhere, your character moved there. If you clicked on an object, you interacted with it, provided it was possible. The 'look' command was rendered redundant as you were encouraged to rely on your own eyes. Furthermore, if you deduced the solution to a puzzle without in-game clues, the game was content to let you proceed. Additionally, *Myst* abolished the penalty of character death, allowing unrestrained creativity without fear of retribution. This might lead one to surmise that the game was simplistic, but nothing could be further from the truth. Despite its serene facade, *Myst* was far from an easy game.

Full circle

30 years after the Macintosh version, *Myst* once again was released on Apple devices (iOS to be exact). On February 9th, 2023 it became available for iPhone and iPad users. Players can begin the adventure free of charge, but to continue beyond the *Myst* main island one must buy the full version. Graphics settings default to *Epic* to show off the beauty of the world rendered using Unreal Engine. At the same time the player is advised to connect the device to a charger to prevent quick battery drain!



With a selection of buttons to press, I feel this door may be locked.

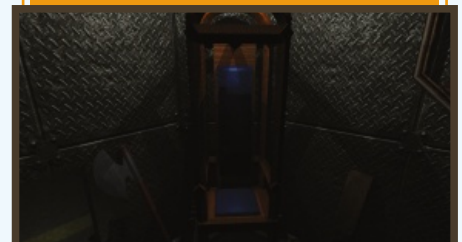
All the technical marvels of *Myst* would have been in vain without a captivating narrative to hold the players' attention. Fortunately, the game did not disappoint in this regard either. As an anonymous individual drawn into the world of a book titled *Myst*, players embark on a journey to explore and unravel the mysterious events that occurred there. With only a cryptic note found on the ground as the initial clue, players venture through various book worlds (the in-game *Ages*), gradually unveiling more about past events. The game doesn't dictate a sequence in which to visit these *Ages*, nor does it prescribe a predetermined outcome. Ultimately, the player must decide whom to trust and what actions to take.

Although the brilliance of the original *Myst*'s graphics may have faded with the passage of time, its enthralling story continues to captivate audiences even today. The game has been re-released numerous times, each version boasting a range of technical enhancements. The static scenes from the original were first transformed into a free-roaming 3D environment in *RealMyst* (2000), and later elevated to a virtual reality experience in *Myst* (2021). The game's success prompted a series of sequels and ultimately gave birth to a new subgenre of adventure games.

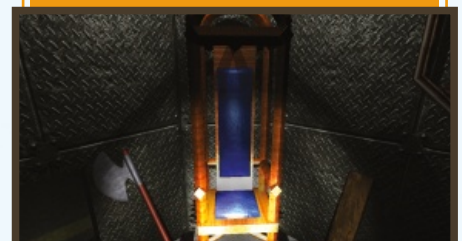
Remakes

1993: *Myst* (256 colours)
2000: *Myst: Masterpiece Edition* (24-bit truecolor)
2000: *RealMyst: Interactive 3D Edition* (free-roaming, real-time 3D)
2014: *realMyst: Masterpiece Edition* (Unity engine)
2020: *Myst* (VR, Unreal Engine 4)

Changing to real-time 3D rendering had its side-effects - certain locations became much darker than in the original game. To help players *realMyst* introduced a... flashlight (!). One can enable a torch that will illuminate the spot under the cursor. Apparently, the protagonist of *realMyst* read the book by torchlight...



Can someone find the light switch please?



Who wasn't expecting to find a throne and an axe?"



Haven't we been here before?



A wishing well? Type of tomb? Go and take a look.

WHAT WAS ONCE OLD, IS NEW AGAIN

- Homebrew gaming on the Nintendo 64



Welcome back Pixel Addicts! As we continue our journey in the world of homebrew releases, we can't ignore Nintendo's 64-bit console, the N64. While homebrew gaming is just starting to take hold on this console, what is available (or will be made available) can be considered quality.

We start this month with Piko Interactive and their 3D platformer *40 Winks*, and how it inspired more developers to take notice of Nintendo's ageing 64-bit console. As either brother or sister, Ruff and Tumble, the player is tasked to collect 40 winks scattered around the game world, in an effort to thwart the game's big bad, Nitecap.

As you play the game, it is possible to transform into various characters, including a stealth ninja, a superhero, and a ferocious monster. The gameplay accommodates these personas by including obstacles that can be overcome by each persona's special abilities, including the superhero's jetpack to reach high platforms and the monster's strength to kill more enemies, to name just a few. This all transpires across six difficult levels - a castle, shipwreck city, outer space, deep underwater, and a prehistoric-themed world replete with a T-Rex and giant wasps. While I didn't have anyone available to test this feature, the game includes a two-player co-op feature that looks quite promising.

Piko Interactive's website:
www.pixel.addict.media/Piko



You'll need to face your nightmares if you want to progress.



The Bitmap Bureau are back in the limelight again and it involves *Xeno Crisis* coming to both the N64 and Nintendo Gamecube consoles. These talented blokes are quite serious about bringing their games to every console platform known to man. The N64 version received the royal treatment, since it comes with an N64 cartridge, a user manual and an honest-to-goodness N64 style retail box. There's a cheaper option to just buy the cartridge, so don't worry.

Xeno Crisis is a modern day, twin stick shooter with retro in its pedigree. As either a male or female Marine, you are whisked away to an alien planet to discover what happened to the human colony that inhabits there. The moment you're dropped off and enter the facility, it's nonstop action. The gameplay is very *Smash TV*-esque, as you must clear each room before advancing to the next. Arrows appear before each available door, indicating which areas can be visited. Along the way, the player must rescue colonists who are named after Patreon backers that supported the game's development some time ago.

The in-game enemies are an eclectic assortment of monster movie tropes, as Xenomorph-style beasts attack from every angle, along with blob-like creatures

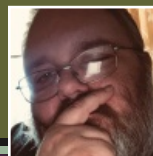
that slither across the playfield and shoot bullets at the player. Each stage has new baddies to fight, as well as boss monsters that fill (at times) half the screen. Saying the game is challenging would be an understatement. Even if you choose to play the game on easy (the difficulty can be changed in the Options menu, found at the start up screen) you are still in for a challenging, difficult game that is a lot of fun to play.

The controls - which many people have asked about - are perfect for this port of *Xeno*. While the D-pad can be used to control one of the Marines, the in-game controls are designed to take advantage of the analog stick to move; the Z-Trigger to roll; and the (four) C-buttons to fire in all directions. In addition, the right shoulder button is used to toss grenades. This setup feels natural and enhances the gameplay, especially with the C buttons being used to fire. For example: while playing, you can press the C buttons to fire in any direction (up, down, left and right). To fire directionally, the player must press two of the C buttons together. Of course, pressing the up and right C buttons will cause your Marine to

Make sure you spend wisely on power ups.



Smile for the camera! On second thoughts...



A co-op strategy will make levels a bit easier.

grenades that can be held at any given time. Plus, there are expensive (albeit valuable) items available, such as a gas mask (needed later in the game) and an elixir (an extra continue), to name just a few. Without ruining the game's ending by outright saying it, I will drop this morsel of crumbs — try not to die... at all. And focus on every item in the shop except for the elixir, if you can help it.

Xeno Crisis for the Nintendo 64 is a pleasant surprise and a worthy addition to the system's library of games. In fact, it's one of the best homebrew games released for Nintendo's 64-bit powerhouse. It comes highly recommended.

Would you like your very own copy of *Xeno Crisis* for N64? In collaboration with developers Bitmap Bureau, *Pixel Addict* is giving away one free copy to a lucky reader. The details of how to win can be found below.

PA

fire diagonally right, while pressing the up and left C buttons will make your Marine fire diagonally to the left, and so on. Again, it's a great controller scheme that takes full advantage of the N64's controller.

The game's objective is to rescue prisoners, collect their dog tags for currency (which you can spend in between levels - more on this in a moment), and pick up ammo that appears randomly throughout each level. In addition, the player can pick up temporary weapons such as shotguns and flamethrowers, among others. You have a short period of time to use these highly powered weapons before they disappear, so use them quickly and deal as much damage as possible.

When a level is completed, the player is presented by a storefront where they can purchase additional health, speed and increase the amount of ammo and



The setting may be brighter but it isn't less dangerous.

Time To Suit Up Soldier

As Mike so rightly says, this is a fantastic game and well worth checking out - which is why we're offering one region-free copy of the N64 release as a competition prize this month. All you need to do to be in with a chance of winning, is answer this quick question:

In the 1986 movie *Aliens*, what is the name of the exomoon Ripley and the team land on?

Email your entry to paul@addict.media to be entered in the prize draw. Closing date for all entries is 21st August 2023 when a winner will be chosen at random and contacted.



HOMEBREW HEROES

- Marc's holding out for a Homebrew Hero and finds quite a few

Indie royalty joins us for Homebrew Heroes this issue as Zebbe talks about his new game. Elsewhere it's a bit of a Gameboy special with a glut of games for Nintendo's handheld consoles, including a review of *From Below Pocket*.

THE VIKING & THE NINJA

Format: MEGA DRIVE
Release Date: TBC

Delayed Again are currently working on the action RPG *The Viking & the Ninja*. Pixel Addict sat down with Zebbe, the brains behind the game, to learn more.

Does the name Zebbe ring a bell? It is certainly a famous name on the Indie scene. The first Indie game I ever purchased was *Pier Solar*, a game that Zebbe worked on as part of WaterMelon. Zebbe is happy to discuss his impressive resume with us, "I've also worked on some Piko Interactive games, including *Canon and the Legend of New Gods*, *Jim Power* and a SNES game which is going to be released soon. My main job is being a level designer/project manager at Crackshell, where I've worked on *Heroes of Hammerwatch*, *Hammerwatch II* and *Hammerwatch: Anniversary Edition*."

We are, of course, here to talk about his



The planned cover art for the game.

latest game, *The Viking & The Ninja*. Zebbe explains the premise behind the title.

"The story of the game tells about the Viking Land and the Ninja Empire, two nations at war. Meanwhile, a nearby free island called Brownie Island holds the Tower Trials which, if completed, are the key to winning the war. A Viking called Birger and a ninja called Jackie are sent to the island for this very task, believing they are to compete alone. But as they arrive, they are forced into an unholy alliance and must work together, or both their nations will be doomed. The strong and carefree Birger and the fast and proud Jackie make a great team on paper, but are they up to it in practice? Only the player(s) will decide!"

"The gameplay is like a typical action RPG on the Mega Drive, except this game features two-player co-op. What if you play alone? No problem, let the AI control the other character. Traverse a cosy hub village, explore a huge forest to find hidden caves full of treasures and secrets, and tackle five enormous towers of traps and powerful beasts. Use items to power up, and skills to handle tricky combat situations. But knowing your strengths and weaknesses and working together with your partner is the true path to victory!"



Ninjas and Vikings may be at war, but you are forced to work as a team to save the day.

"The game strongly emphasises humour, which goes hand in hand with the anachronistic fantasy setting, inspired by *Dragon Ball Z*, *Monty Python* and *Earthworm Jim*. Hopefully, it will feel both familiar and original to the players".

There is no current release date for *The Viking & The Ninja* but we do know that there will be a physical version. Zebbe promises us that the cart version will be well worth the purchase, containing some special surprises.

We at Pixel Addict are hoping to get a playable build to sink our teeth into as soon as possible, and we will of course keep you updated, right here in Homebrew Heroes.

VIEWTIFUL JOE

Format: GAME BOY
Release Date: OUT NOW

It has been just over 20 years since the side-scrolling *Viewtiful Joe* made his debut on the GameCube and we now have a version on the Game Boy as well. Wait, what?

Let us explain, developer 2bitcreek (who is a whizz at demakes) has created a version specifically for Nintendo's handheld wonder and it is rather spiffing indeed.

You can download the ROM yourself at www.patreon.com/gameboydemakes and you can also show the developer some love to help them continue with the demakes.



The original game was released in 2003.



Now in 2023, we have a "Viewtiful" Game Boy demake.

By Marc Jowett

@marc_jowett

@marc.jowett



KUDZU

Format: GAME BOY
Release Date: Q3 2023

The non-linear adventure game *Kudzu* was funded on Kickstarter in just over 12 hours, which is an incredible achievement for developer Chris Totten and his team. We should see the game released over the summer.

The game centres around Kudzu, an invasive plant species that has destroyed almost everything. You play a character called Max, a student of master gardener Zoen and the hero of the hour. You see, it looks like Zoen has gone on a trek to study the Kudzu, and is now missing. Your job is to hack and slash your way through the game using a variety of gardening tools and find him, as well as discover what is really going on with the Kudzu species.

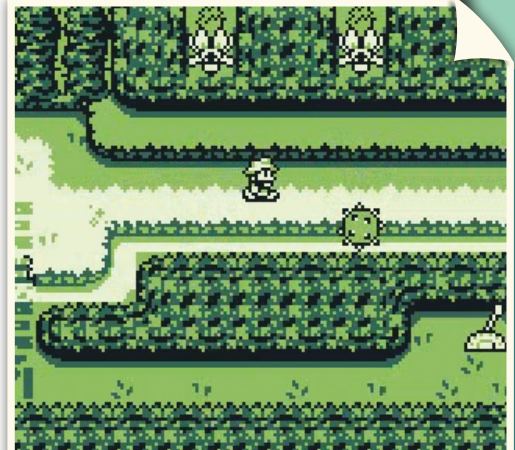
Publisher Mega Cat Studios kindly provided *Pixel Addict* with a playable demo, and it already feels like it is going to be an

absolutely huge game. During our playthrough, we set out trying to find out where Zoen had disappeared to, solved a variety of lever-based puzzles, took down some monsters with a machete, and even rescued a goat, just because!



Soz, and all that.

Kudzu could be one of the best Game Boy games to release this year, so look out for a review in the near future.



The hills are alive with Kudzu.

JANKY JOE IN RETRO HELL

Format: SPECTRUM
Release Date: OUT NOW



Does this game ring a bell to you?

We are normally all about console games here at Homebrew Heroes, but when we saw developer Davey Sloan had released a completely free Spectrum game that featured parodies of classic games, we had to take a look.

Janky Joe is the name, and parody platforming is the game. Taking place inside ANTcade (sound familiar?) each level is a janky (poor rendition) parody of an actual game series.

You will be avoiding barrels in Wonky

Wrong, collecting bubbles in Trouble Bobble and fleeing from ghosts in Jank Man, to name just three levels.

With each level themed around a different game, it adds great variety to the gameplay and with some lovely background ditties, *Janky Joe* is a nostalgic trip that has no right to be just given away free of charge.

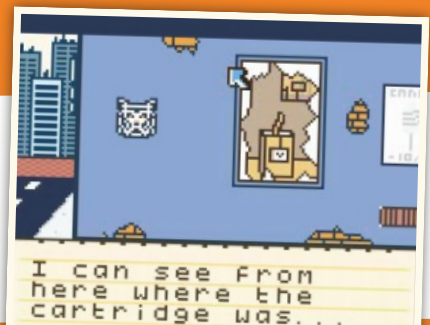
You can download the game at <https://sloanysoft.itch.io/janky-joe> and also donate if you wish to. We recommend you do donate, as it is a real labour of love.

INSPECTOR WAFFLES: EARLY DAYS

Early Days is a prequel to the original *Inspector Waffles* adventure, which was released in 2021 on the PC. The second game in the series centres around Inspector Waffles as he is just starting life as a detective, aiming to prove that he is anything but a rookie!

Being a detective game, there is plenty of point-and-click action as you aim to get to the bottom of each mystery, and for those that have played the original *Inspector Waffles* we are promised familiar characters.

Format: GAME BOY COLOR
Release Date: Q1 2024



Looking for clues is key.

Having played an early demo of the game we set to work trying to solve a mystery involving a theft at a video game store. Each suspect has a set number of questions and these are unlocked by inspecting areas for clues. We were led to a potentially dodgy security company, where we discovered the owner might not be all he seems. It was enjoyable stuff gathering the evidence and going back and forth, although the dialogue will need to be tightened up before the final release.

Goloso Games are aiming to release *Early Days* at the beginning of 2024, with Broke Studio due to handle a physical version of the game. You can play the demo for yourself at <https://golosogames.itch.io/inspector-waffles-early-days>

FROM BELOW POCKET

Format: GAME BOY/GAME BOY COLOR/SUPER GAME BOY
Release Date: Q3 2023

Tetris featuring a legendary sea monster? We thought we were Kraken up until we started playing Matt Hughson's *From Below Pocket*.

The original *From Below* was released on the NES back in 2020 and this version is the handheld port. You can play the game on three different handheld variants. The original Game Boy, the Game Boy Color and the Super Game Boy, with the cartridge automatically detecting which handheld you are playing on, and changing the colour palette accordingly.

The game plays the same way *Tetris* does but with a Kraken-shaped twist. As blocks fall onto the playing field and you spend time slotting them in nice and snug, a Kraken at the bottom of the screen uses its tentacle to push the blocks upwards,

adding an extra gameplay element. Ultimately, you have to keep an eye on both the playing field and the Kraken's tentacle, which changes position underneath.

There are three main modes available. Fixed mode sees the Kraken attack as you land blocks on the screen, timed mode sees the Kraken attack at 10-second intervals and the classic mode enables you to simply play the game without the Kraken, literally *Tetris* style.

A two-player mode is also included, using the link cable so you can battle against a friend on two handhelds. They don't have to be identical handhelds either, so someone with an original Game Boy can battle someone using a Game Boy Color and so on. The game will also include an



The classic Game Boy version.

internal battery in the cartridge for saving, which is always a huge bonus.

A thumping techno style compliments what is a very addictive puzzle game. Is it *Tetris* with bells and whistles on? Absolutely, but *Tetris* has always been a perfect fit for handheld consoles so more of the same is always welcome, and with a modern Kraken twist to proceedings, *From Below Pocket* is a game you will keep coming back to for more.

DRAGONYHM

Format: GAME BOY/GAME BOY COLOR
Release Date: Q3 2023

Chris Beach from Spacebot Interactive has been in touch to tell us that *Dragonborne DX* has been given a new name. The reason? Chris tells us that the game has evolved so much since it first



Let's get ready to rumble!

began production that it has effectively become an entirely new game away from the original 2021 *Dragonborne* game. Chris tells us, "It's a chance to reboot the series from this game onwards, we have detailed plans and lore for future games that will release on different consoles and the new name we have relates to the lore and backstory more than the current name."

With the game outfitted with a new name, it might be wise to get a refresher on the game itself. Chris explains that "Dragonym is a brand new RPG for Game Boy Color and is backwards compatible with the original Game Boy. It takes inspiration from *The Legend Of Zelda* games, *Dragon Quest*, *Final Fantasy*, *Grandia* and *Pokemon* in

terms of aesthetics and gameplay."

"The idea of developing a game that merged the puzzles and real-time enemy style of *Zelda* games with the classic RPG turn-based battle system along with a deep back story and lore fascinated us. We aim to bring fans of the GB/GBC an experience as close to the calibre of the AAA games that the retro handheld saw at its peak".

The team hopes to start pre-orders for the game around September time and it will also see a physical release. Space Bot are also toying around with the idea of a digital version for the more modern Nintendo Switch, which would be a welcome bonus.

ZOOL REDIMENSIONED

- Paul checks in on a platforming hero to see if Zool still rulez

Release Date: Out Now

Developer: Sumo Digital Academy

Publisher: Secret Mode

Expect To Pay: £6.99 Approx

Formats: PS4 (Reviewed), Steam

Back in the 1990s we heard about a lot of games described as "Sonic/Mario beaters". With so many platforming titles, a game had to be special to survive in an over populated genre.

When *Zool* was released in 1992, reviews were quite strong across all formats - yet despite a sequel in 1993, no further titles in the series followed. However, in 2021 that all changed with a *Zool* remaster released on Steam (and now also for PS4). But, classing it as a "remaster" is actually doing it a disservice...

Brought to us by the talented team at Sumo Digital Academy, they've dragged *Zool* (Ninja from the Nth Dimension) into the modern day with added bells and whistles. Check out our interview on the following pages for more on this.

Storyline-wise it's all straightforward; your spaceship has crashed on a planet and you must run, shoot and jump through several themed worlds broken down

In Music World, you'll be wired for sound.

into levels. A final boss guards the end of each world and must be defeated to progress to the next. These do increase in difficulty but if you learn the attack patterns you'll soon be on your way.

Planetary Plundering

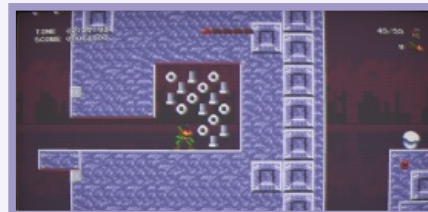
From the opening Sweet World, enemies are right at home in their surroundings. Racing to the end of the level requires collecting a set number of items so that by the exit medallion you have the required amount - so don't go too fast or you'll be retracing a few steps to go and collect more. There are also three bigger items to find which are hidden around the level, so some exploration pays off to find those secret areas.

Tough Enough?

With the original *Zool* being a challenge back in the day, this latest version has offered a few "quality of life" improvements. The new zoomed out camera view is the most welcome addition as more of the level is on show ahead of you. A new double jump and wall grab makes getting through levels not only easier but faster. For those who want to cheat (just like the old days) you can add invincibility and autofire to your playthrough - however if you do this you CAN'T gain trophies. It's a great way to rush through and see the levels, but just playing through as normal gives you plenty of checkpoints to restart from and extra lives are also dotted around the level - another reason to explore your surroundings. Finally your game is also saved between levels - something the original *Zool* didn't offer, this is another welcome addition when time is tight for gaming.



Eye see you there Zool!



Make sure you explore levels to find rooms filled with goodies.

How Much?!

Zool ReDimensioned offers a decent amount of gameplay especially for the price. Alongside the main game is the 'Ultimate Ninja Mode' which reverts to the 1990s Sega Mega Drive version of *Zool*. Playing this version highlights how many tweaks and changes have been brought to the new version; which I prefer but that could be because the original was quite tough!

There are also a few couch co-op mini games to have a blast on with friends or family. These are a nice little bonus and do a good job of tapping into that old school gaming experience before multiplayer was mainly done in separate houses.

GRAPHICS 87%

Really colourful with a good amount of detail. Each world's theme is showcased by distinct characters and environments.

SOUND 82%

The music fits in well for a game with such a retro heritage. Some tracks did get stuck in my head.

GRAB FACTOR 83%

Easy to jump straight into, difficulty curve increases at the right pace and the updated gameplay helps.

PLAYABILITY 84%

Responsive controls, *Zool* jumps and shoots with ease. You'll need to slow down at times to survive!

PA
VERDICT

84%



The new camera mode makes it easier to see what's ahead.

SUMO'S NEXT SUPERSTARS

- Paul gets more background information from some of the people involved with the Sumo Digital Academy



Simran Chopra
(Apprentice Programmer)

David Moore
(Academy Senior Programmer)

George Allan
(Trainer and original Zool coder)

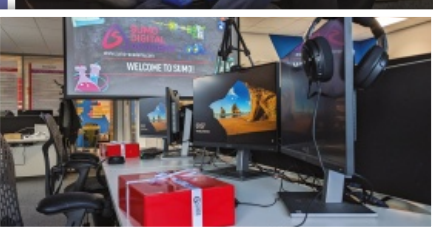
Jake Habgood
(Director of Education Partnerships)

team find the original?

[Simran] I wasn't born in 1992 when *Zool* was originally released, but I got to play *Zool Redimensioned* countless times as one of the QA team on the PS4 version. While I'm an expert now, the original is super challenging and the last apprentice cohort did a fantastic job of bringing it up to date. We've had so much fun in the Academy playing the multiplayer modes and I think it can bring as much joy to the current generation as it did for those that remember the original. It's amazing to now be part of the next cohort of apprentice programmers and have *Zool* as a live project to learn from.

Zool Redimensioned has several differences and I would say improvements in some areas. How were the new features decided upon and built in?

[George] All the new features have been very much driven by the apprentices. Jake originally asked me, as the coder of the Amiga version, to check out *Zool Redimensioned* and chat with the team. It was fantastic to see such enthusiasm and how they'd brought the game into



Could it be you joining the team and sat here one day?

What was the aim of setting up the Sumo Digital Academy?

[Jake] The principal motivation has been to create a different entry point into the games industry. It's well documented that current pathways such as games degrees have left the industry unrepresentative of its audience and that's bad for creativity and inclusivity. There are many reasons for this, but we've found that graduates of all different kinds of degrees are willing and ready to consider a different career path which they might not ever have done when they were younger. We get a lot of physicists and mathematicians wanting to be game programmers, but also biologists, musicians and even a fashion business student! These amazing backgrounds all help to add to the diversity and creativity of our developers.

Why was *Zool* chosen as the first Academy project?

[Jake] We didn't have any artists in the



Choose between the original Zool or the new Redimensioned game modes.

Academy at the start, so remakes were the only option open to us. I used to work for Gremlin back in the 1990s and have used different Gremlin IPs in my teaching over the years with the permission of Ian Stewart (one of the founders of Gremlin). Owen (lead programmer on the PC version of *Zool Redimensioned*) was one of the first academy students and I gave him the task of recreating *Zool's* platforming mechanics as an exercise (as I had done with many students before him). However, there was something special about Owen's version: he clearly had an intuition for player handling and controls. He did such a great job we decided to follow through and create the whole game. With Ian's blessing and a lot of generous support from the amazing people at Secret Mode, we shipped it.

For many gamers in the Amiga / Mega Drive era we remember the hype around *Zool*. How did the Academy



The 2021 Academy team behind the original Zool Redimensioned.



The 2022 Sumo Digital Academy team behind the Zool PS4 release and added multiplayer modes.



Quick! Grab those items and beat your opponent to the highest score!

to say they have worked on a published game, and they deserve a lot of credit for taking it all the way through the console submission process.

Are there any other games from the back catalogue you hope to work on with upcoming classes? (Harlequin has always been a personal fave and deserves more love.)

[Jake] Never say never, but we are moving on from Zool and Gremlin for now. Alongside shipping Zool, the apprentices also wrote a whole new game engine and created a vertical slice of their own original platform game. It's a really interesting concept and we'd love to take that further with the new cohort and perhaps get an early access release by the end of the year. Watch this space. PA

the new millennia. I wasn't 100% sure about the double jump (in a minority), but they came up with an 'Ultimate Ninja' mode to keep us old-school gamers happy! It was a privilege to join the Academy as a trainer the following year, working with a group of new coders as they got to grips with the codebase, going on to design and implement a range of party games. Of course, I'd try to pitch in with an idea or two, but quite rightly they were the ones steering the game's future.

Sumo Digital has a fantastic history dating back to the Gremlin roots with many ex Gremlin staff involved. Have people such as Jake Habgood and Ian Stewart been able to show and instil the passion of "The Gremlin Years" so to speak?

[Jake] You mean apart from recruiting Zool's original programmer as an Academy trainer?! Yes, we study the history of Gremlin and some of its projects as part of the apprenticeship - mainly as an example of the pitfalls of old project

management techniques! However, the real benefit of having the Sumo Academy is the ability to look at Sumo's own titles from the inside, and both Snake Pass and Spyder form part of our curriculum. Dave Moore is another academy trainer who joined us from Sumo's Core Tech team and brings with him a wealth of current knowledge about the technicalities of modern game development.

How was the response for the finished product from those involved? I'm amazed at how well a 1990s classic has been updated for modern day and plays so well.

[David] I think the students did a fantastic job on this, all of them. They wrote the complete game engine in C++ from scratch, which is not something that the average graduate of a game degree can say. More students from the Steel Minions helped with the PS4 engine port and then the latest apprentices added the multiplayer modes and shipped the game. It's such a great boost for all of their CVs

Gaming Apprentice

If you like the sound of what you have just read and feel you'd enjoy a career in video game development; it isn't out of reach! Sumo Digital Academy places are full for 2023, but if you're over 18, live in the UK and have GCSE grades A-C in Maths and English then you can still apply. All the relevant information is over at www.sumo-academy.com

Who knows what will come next from the Sumo Academy graduates?

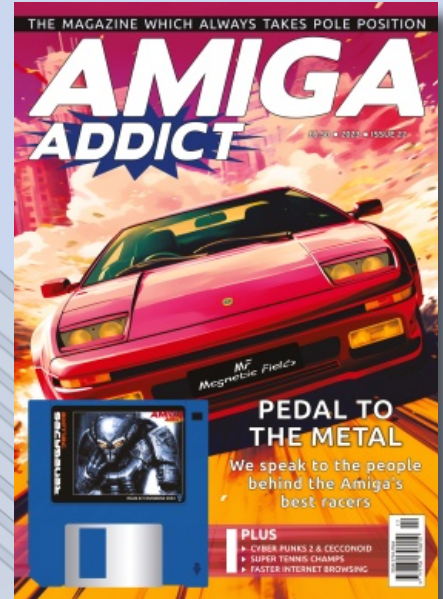
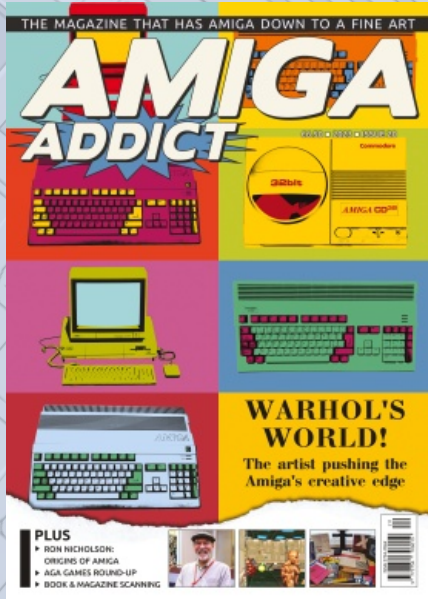


This giant banana keeps growing and makes it harder to score points.



The party mini games are a nice addition for extra content.

FEED YOUR AMIGA CRAVING



DO YOU LOVE AMIGA?

Then try Britain's best-selling Amiga magazine made by the community, for the community.



NOW STOCKED IN
NEWSAGENTS
(Inc. WHSmith)



BUY ONLINE AT
WWW.ADDICT.MEDIA

ALMOST FAMOUS...

- Alan recalls being filmed for a computer game

Regular readers of the magazine may recall that I have previously written about my younger exploits, playing and recording with various bands. In 2007, the bass player of one of those - The Mafia, announced that his brother in law, Michael (who just happened to work for Sony) wanted to film the band and use the footage in a computer game. Wow! Me? In a proper computer game? This was dreams come true stuff! We readily agreed and waited with anticipation.

Sing When You're Winning

The game was *SingStar*; the PS2 (and later PS3) phenomenon that saw teenagers in their bedrooms driving their parents insane by squawking at full volume into a plastic microphone! It was a hugely successful series, selling over 16 million PAL units with a further four million songs downloaded from the song store. For anyone unfamiliar with the game, it is best described as a cross between karaoke and *Guitar Hero*, where the player has to sing the words to various popular songs in time (and preferably in tune!) as they are displayed on screen. Behind each song there is a background video, and it was for this purpose that we were to be filmed.

Now I am a realist - I know that no one ever notices these videos; they are basically digital wallpaper, with the player naturally focussing on the words on the screen, but nonetheless it was inclusion in a proper video game release and was very exciting!

Planning and Execution

It was arranged that Michael would meet us at a venue for a scheduled gig and film us during our sound check, before too many punters were in attendance to get



Playing the show later on!

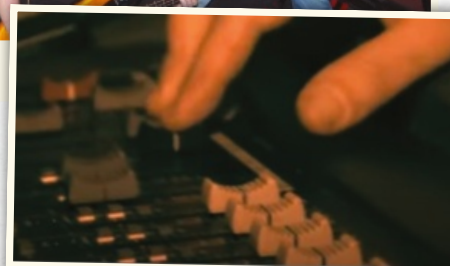
in the way. He arrived armed with a very impressive looking video camera and recordings of two Doctor Feelgood songs that were subsequently played for us to mime to ("Roxette" and "Back in the Night"). I didn't know either of them, but they were musically straightforward and easy to pick up. And, since we were miming, the odd mistake didn't matter anyway! The songs were played, we mimed, and Michael filmed us from all sorts of weird and wonderful angles. Everything was completed quite quickly with just a couple of runs through.

Disappointment

A few weeks later we received the finished videos and... I have to admit to being just a tad disappointed. We weren't personally featured at all; all the shots were tight close-ups of the instruments with a variety of video effects being used to jazz up what were, in truth, two fairly dull songs.

Nearly Famous

Nevertheless, I kept my eye on *SingStar* releases over the forthcoming months but sadly there wasn't one that featured any Doctor Feelgood songs. An enquiry much later established that the two songs unfortunately never made the cut for a final game release. However, we were told that the videos were *probably* used to back different tracks on a *SingStar* game, but frustratingly nobody



Even the sound engineer got a look in...

could remember which ones. And with so many songs and so many game releases it was a near impossible task to trawl YouTube to try and find them!

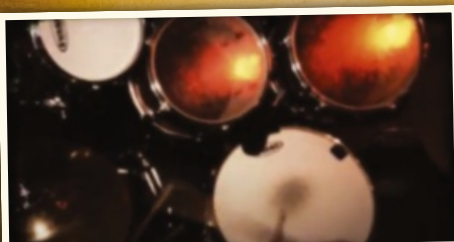
So there you have it. There is a pretty good chance that somewhere out there is a *SingStar* song with a backing video featuring me and my (then) band. But you can't see our faces and I have no idea what game it is on.

Oh, and we didn't get paid!

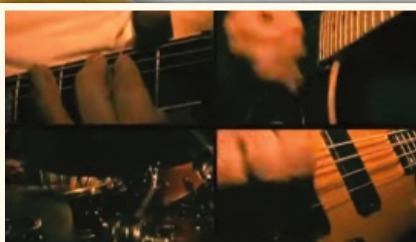
So, close but no cigar (or lucrative musician contract). Only *almost* famous then - I guess I'll have to settle for that! 🍷

You can view the raw footage that we were given using the links below. If you recognise the footage from an actual *SingStar* video then please get in touch and let me know.

www.pixel.addict.media/Singstar1
www.pixel.addict.media/Singstar2



Yes, we know he had far too many drums...



The second video used split screen effects.



That will be my hand and my Gibson Les Paul...

- LOOKING BACK AT THE TERMINATOR VIDEO GAMES -

- Travel back to the 1990s and meet Arnold... sort of

When Nightfall Games asked me to be a writer on the Terminator RPG series I was overjoyed. Not only was I working on a franchise I loved as a kid but also I had the sure knowledge that everything I wrote would be canon. Well until the next rewrite, but that's how it goes. A similar feeling arose when the editor of Pixel Addict asked me to provide some memories about Terminator video games. For clarity I haven't revisited these games and I'm not critiquing them with a present-day perspective, I'm just going to be writing about my experiences with them back in the day.

Terminator 2: Judgement Day (Amstrad CPC)

Ahh my beloved Amstrad, the first gaming computer I owned and my first love. I was far too young to watch *T2* when it first burst into cinemas, but I was captivated by the *Zzap 64* preview in issue 76. The visuals and still images of the movie gripped my imagination and wouldn't let go. So when my sister bought me the Amstrad version of the game I loaded it up immediately. Even going as far as phoning my friends and bringing them round to experience the awesomeness of this title.



Unfortunately, that awesomeness didn't show up. The beat-em up sections were incredibly slow and the puzzle sections where you repaired Arnie's hand and eye were ridiculously difficult for my 8-year-old brain. Where was the shooting action and robot carnage? The graphics were luscious and during the eye repair section the Terminator actually looked



like Arnie, but on the whole the experience was lacking. A disappointing first experience with the franchise but my youthful imagination and need for cyborg violence wasn't deterred. I wondered, what else was out there?

The Terminator (Sega Mega Drive)

My friend Andy bought a Mega Drive back in the late 1980s. I would go around to his house and play *Sonic the Hedgehog* and *Altered Beast*. I lusted after that console but I had my Amstrad and there was no way my parents would let me have another gaming machine. When Andy told me that he had just got the *Terminator* game for the Mega Drive I knew I had to play it.

Holding the controller in my sweaty pre-teen hands, I finally found the cyborg carnage that I had lusted after. The graphics were suitably gloomy and the powerful rock soundtrack blasted from the TV speakers. I felt powerful but not overpowered, I knew that the Terminators were dangerous. The first level was tough, I had to calculate the correct distance to throw the bombs.

At times I was frustrated by the experience but I loved the diversity of the enemy types, fighting the HK (Hunter-killer) units was a treat! Andy had to take the controller from my inexperienced hands in order to get me to the second level. Playing as a trench coat wearing Reece in the 1980s and blasting my way to freedom was satisfying and I had a grin on my face as I managed to reach the third level. Unfortunately this is when it fell apart and I failed miserably. I didn't care however, I had finally experienced *The Terminator* as it should be and even though I hadn't seen any of the films yet, I knew I was a fan for life.

Terminator 2: The Arcade Game (Sega Mega Drive)

Fast forward a few years and I had my own Mega Drive. *Terminator 2* was out on VHS and my parents decided I could





finally watch it. As a double whammy I rented *T2: The Arcade game* from the video store the same night. Oh boy, this was going to be one hell of a party at the McAuley household! This game played just like *Operation Wolf*, but on steroids. As I played through the first level, I actually felt like I was fighting alongside the human resistance. I was high as a kite on caffeine and sugar, I loved all things Terminator and I didn't give a damn who knew about it. I had hours of fun with this game but I did find it difficult to progress with the controller. I didn't have the Menacer gun, heck I didn't even know it existed at the time but I wish I had. If I had the lightgun maybe, just maybe I could have completed the first level.

RoboCop Versus The Terminator (Sega Mega Drive)

I first caught sight of this majestic game

on GamesMaster. It was Thursday night at 6pm and all the gamers in the UK were tuned into this TV show. I couldn't believe my eyes, RoboCop shooting a Terminator! Two of the best sci-fi franchises finally meet. (Ed. - "Someone call Hollywood and get them to make this happen!") The next day I bought a copy and began to play. This was truly gaming nirvana, as RoboCop I was blasting criminals in Old Detroit. I had loved the first Ocean game based on the original movie, but this was fast paced and featured buckets of blood. Gore aside, the level design was clever and facing off against the Terminator as the first boss was exciting and

By Chris McCauley
www.dark-universes.com



underlined the game's intent. The comic book cutscenes delivered a captivating story and I was glued to this title for months to come. I think to date, this is my favourite Terminator game.

These four games were my introduction to the Terminator franchise which I now work on. Just before I wrote this article, I had finished designing some new Terminator models which will be unveiled soon. The Terminator games get a rough ride with some reviewers but there are some crackers out there. Until next time – Hasta La Vista Baby!

PA



BACK ISSUES



ORDER AT WWW.ADDICT.MEDIA

- SSX TRICKY

- Alan hits the slopes and returns to this sixth-generation snowboarding game

In this new series I will be revisiting classic games to see whether they still hold up today, and we kick off with *SSX Tricky*, the snowboarding game released by EA Sports BIG in 2001 for sixth generation consoles, as a follow up to the original *SSX*.

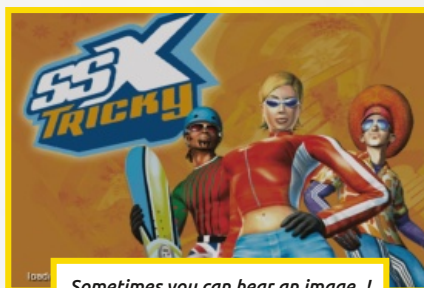
Some things are timeless. They are crafted so well and meet their purpose so perfectly that they never feel old. If you are lucky enough to own a Rolex watch, travel in an E-type Jaguar or even watch an episode of *Fawlty Towers*, you aren't remotely interested in the date it was made, only the quality, the precision and the way it makes you feel.

So the big question is - is *SSX Tricky* timeless? At 22 years old, does it still provide the same enjoyment that it did the first time around? Let's find out...

Hit The Slopes

The game offers eight levels, which you can work your way through as one of 12 characters in four play modes.

Freeride and *Practice* modes enable the player to hone their skills and learn a



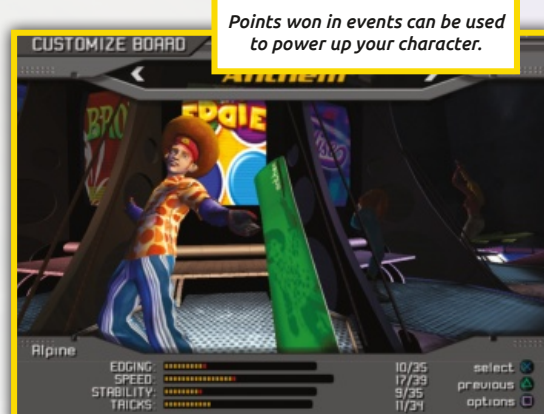
Sometimes you can hear an image..!

course. *World Circuit* sees you competing against other opponents in either a series of races or trick events, and *Single Event* allows one or two players to play a single stage from the *World Circuit* section of the game.

When racing in *World Circuit* mode, your simple aim is to be the first across the finish line. You have the option to race respectfully (*Ed* - "But where is the fun in that?") or you can be more of a hooligan and try to knock your opponents over. The twist is that your fellow racers react depending on how you treat them; if you impede them, they will reply in kind.

Jumping For Joy

The other mode within *World Circuit* is *Showoff* and this is where the real fun is to be found. Here the focus is all about doing tricks and clocking up big scores. In this mode, each course is littered with ramps and rails. Holding down the jump button and releasing it just before you reach the edge of one will send you into the air. Your tricks aren't limited to the ramps and rails either; you can launch a jump from any part of the course.



Points won in events can be used to power up your character.

Spins and flips can be performed while airborne using the D-pad and the shoulder buttons add flourishes and board-grabs. Landing a jump successfully sees you awarded points and your boost-bar will start to fill. This boost can be used to gain greater speed, which in turn gives you more air from your jumps, allowing you to pull increasingly impressive tricks.

Did Somebody Order An Uber?

If you fill the boost-bar completely, you can perform Uber tricks by holding one (or a combination) of the shoulder buttons along with the Uber button (for example - square for the PS2). Uber tricks are crazy-flamboyant, defy the laws of physics, and can earn huge points.

If you land an Uber trick, a letter in the word *Tricky* (which sits on-screen) is illuminated. Complete the word and your boost is maxed out for the remainder of that level. Tricks score points depending on their complexity and your stage score is rated against the opposition.



Use the pipe sections to rack up big scores.



That red SSX sign is a clue to a shortcut, go straight on and crash through it!

Big Points = Big Fun

Liberal spread around each course are yellow, orange and red snowflakes floating temptingly in the air. If you manage to jump through one while pulling a trick, your score for that trick is multiplied by two, three or five times respectively. If you can nail a couple of Uber tricks (or more) through a five-times multiplier your scores can skyrocket.

Each course contains hidden routes to be explored. The first are relatively sensible, but by the time you reach *Tokyo Megaplex* they are insane, featuring a myriad of ramps, rails, chutes and air-vents that propel you high into the air, ensuring that you spend very little time at ground level. There is no quest for realism on display here, this is pure video game lunacy turned up to 11 and it's brilliant!

In both *Race* and *Showoff* mode you compete in three rounds with a top-three finish ensuring progression to the next race, while a top-three finish in the final unlocks the next course. You are also rewarded with medals (which unlock new characters, outfits and boards) and power-up points (which can be spent improving your character's speed, edging, stability and trick-speed).

Risk and Reward

The graphics are fantastic and look much better than the screenshots convey, with each course and character having a distinctive and individual look. The courses are well designed and feel solid, with enough freedom to let you pick your route, but not so much that you feel lost. The sound and music is excellent, and the character voices were provided by celebrities such as Lucy Liu and Macy Gray.

But it is in the gameplay department that this game really shines. The controls are intuitive, precise, and once you get the hang of landing your tricks, hugely satisfying and rewarding. When you land your first Uber trick you will be smiling like the Cheshire Cat, and when you nail your first double-Uber through a red multiplier you may well find yourself



Choose your ramp with care.

becoming a tad moist! (Ed. - "Oi, this is a family magazine!")

Uneven Slopes

Negatives? Well the game is really all about the *Showoff* events in *World Circuit* mode; everything else feels a bit bolted on. There is nothing particularly wrong with the racing element per se, but *Showoff* is just so much fun you will spend most of your time there!

Also, the *Showoff* levels, while well designed and nicely diverse, are a little uneven in terms of difficulty level. Some can be cleared on a first attempt, but *Mesablanca* and *Aloha Ice Jam* in particular can be pretty tough to qualify from. That's not to say that it isn't fun trying (and of course there needs to be some challenge) but the difficulty curve isn't particularly linear.

A True Gem

In the years since 2001 there have been numerous incarnations of the SSX franchise across many platforms, but none properly captured the essence of SSX *Tricky*. Here you are always working within a defined play area, with the rails and ramps nicely placed and easier to find and hit. Later versions provided the player with a far greater open-world experience, offering a game that was significantly more realistic and impressive, but

ultimately not as much fun.

I am not a snow-sports enthusiast and before I played the original SSX this was not a game that would have appealed to me. But this is so well executed and is such fun, it is impossible not to fall in love. A great selection of characters, courses and tricks provide a comprehensive gaming experience. It will take many hours of play to unlock everything and even after you have there is still enormous replay value as you search for that elusive perfect run.

Thoroughly enjoyable, challenging, rewarding and brilliantly executed, SSX *Tricky* is genuinely a timeless classic. As much fun today as it was in 2001, this is an absolute gem and deserves to grace any collection.

GRAPHICS 91%

Impressing in all departments, this is perfect gaming eye-candy. The courses, while being increasingly insane and outrageous, manage at the same time to always feel solid and real.

SOUND 92%

Great effects, music and celebrity voice samples.

GRAB FACTOR 95%

Instant pick-up-and-play. Once you get used to landing your tricks there is no looking back.

PLAYABILITY 97%

In reality the game is predominantly about the *Showoff* section, but this section alone offers one of the most enjoyable gaming experiences I have ever encountered. So good in fact, that I will forgive the slightly more ordinary racing element.

PA
VERDICT

94%



Racing is fast and frenetic.



Get big air and nail those landings for huge points.

PRINCE OF PERSIA

- How do I actually play?

Prince of Persia is an undisputed classic that changed gaming, with its advanced controls and revolutionary animations traced from footage of real life actors using a technique known as rotoscoping. It was available on just about every system – crammed into hardware that no one would have dreamed capable of such feats.

Nevertheless, despite its universal acclaim, relatively few people who sing its praises actually know how to play it. Retro gaming montages usually show the same footage: someone falls down the first hole, then falls to their death in a spike pit a moment later. And that's usually it.

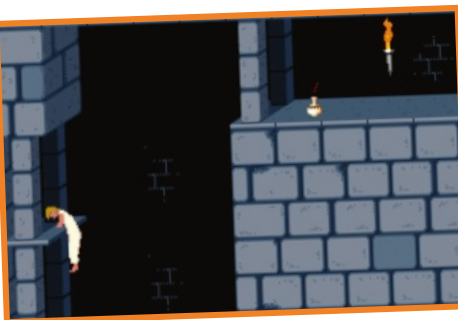
This is a great shame as countless people are missing out on an incredibly rewarding experience that justifies its challenging gameplay. With this in mind, hopefully we can demystify the game with a short tutorial that should be enough to get most people started.

So How Does It Work?

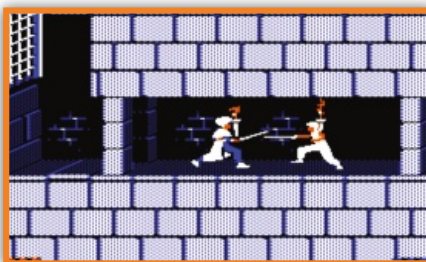
To get to grips with the controls, you mustn't think of this game as a traditional platformer. If you try to play it like a *Sonic*, *Mario*, or *Commander Keen*, you'll die almost immediately. *Prince of Persia* has much more sophisticated controls – and also more difficult to master – but achieves surprisingly realistic results.



Running jumps are one of the game's hardest aspects, as you have to time your buttons presses precisely with each footstep.



Climbing up and down between platforms is one of the game's coolest features.



Prince of Persia's PC release may have been impressive for the hardware, but its original Apple II release was a mind-blowing technical achievement!

The placement of each footstep often needs to be planned in advance, especially with running jumps. As in real life, your character will start sluggishly, followed by heavy momentum which takes a certain distance to dissipate. You can only fall a limited distance before taking damage and will die if you fall too far.

The good news is that if you've played the original *Tomb Raider* series, those games get their primary inspiration from *Prince of Persia*, but re-apply its mechanics to a 3D environment. So just think classic *Tomb Raider* but from side-on, and you will understand the game much more easily.

The main thing to know is that *Prince of Persia* uses a Lara Croft-style **Action** button. This button will primarily be used for walking, but will also be used to drink potions, hold onto ledges, and strike with your sword.

Walking is the key to surviving. Not only is it essential for lining up jumps, but in



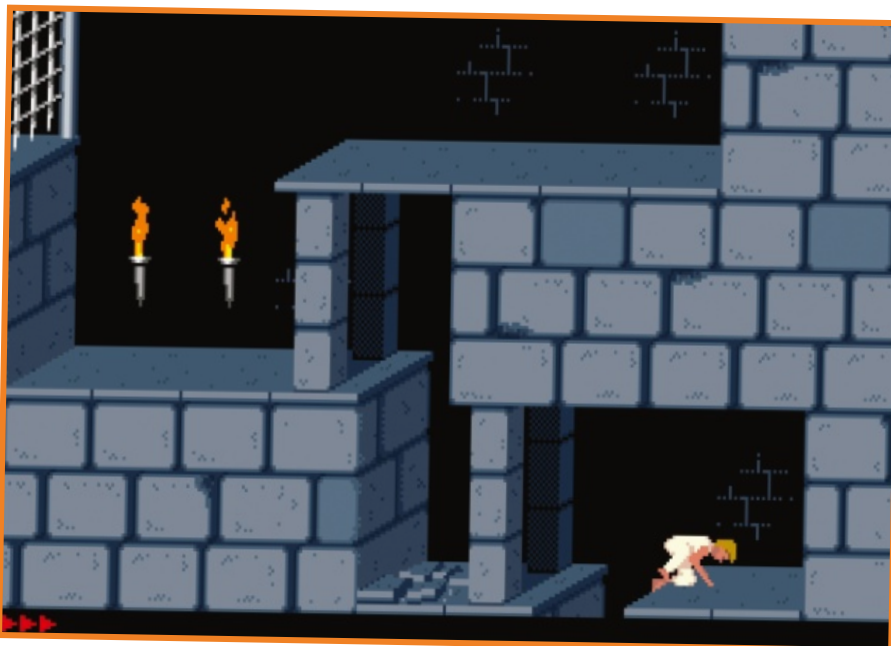
If you have a Master System, Game Gear, or NES, you have to be extra careful – walk mode won't prevent you from stepping over edges!

most versions, the walk mode will prevent you from stepping over an edge. Or some consoles, you can walk right to the edge, but still step over.

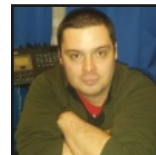
Note that although running through spikes will kill you, walking through them is fine. This, along with collapsing tiles, are two more gameplay elements borrowed by *Tomb Raider*!

Computer versions of the game will probably use the Up arrow to jump, whereas a console version is more likely to map this to a button instead of the D-pad. Although jumping from the spot to climb up ledges is easy enough, jumping horizontally can be much harder, especially when you have to time your button presses during a sprint.

If you're playing on a computer, I recommend using the keyboard, as jumping using **Up** on a joystick can get very tricky, because you need to make awkward diagonal movements quickly and accurately.



Please don't walk over the edge and hurt yourself. You can drop down safely. Like a smart person.



Getting Started

The opening room (bar the different layout of the SNES version) provides an excellent opportunity to practise this game's basic functions.

Its presence may be unnecessary, but the platform in the top half of the screen gives you a chance to try out basic manoeuvres. Starting with walking, if you hold down the **Action** button, it will let you properly align yourself underneath the platform to climb onto it. Pressing **Up** will make you climb onto the platform.

If you haven't moved anywhere laterally, and are still facing right, you can climb back down by pressing **Down**. If you hold onto the **Action** button while descending from a ledge, your character will keep hold of the ledge and dangle in space until you release **Action**. This is handy for checking if a drop will be safe and provides the option to climb back up again if death awaits you.

If you go down to the room's lower level, you will find the first collapsing floor tile – in almost all versions, this will wobble when you land on the lower floor. You will often have to sprint across these tiles to deliberately make them collapse, or jump off the end as part of a one-way journey.

In most videos, people usually just run across the tile, stop halfway through, then fall to the next room, taking a unit of damage. Those who keep running across the tile still usually get confused and step back over the edge, falling to the next room and taking needless damage. Don't do this.

Run across the tile without stopping and

let it collapse behind you. Now use the walk mode by stepping safely to the edge of the new hole. Once there, face the opposite direction and press **Down** to drop safely into the room below.

The Next Part And Secret Rooms

From this point, if you go to the room on your right, you will encounter an angry bloke with a sword. Don't try to fight him because you're still unarmed, and he'll kill you straight away if you try to take him on. (Ed. - "This sounds very sensible!") Instead, you have to go left and explore the rest of the level to find a sword.

The next few rooms will contain more collapsing floor tiles, as well as floor tiles with pressure switches. Pressure switch tiles usually have some kind of clue to visually distinguish them from normal tiles, such as a slight bump in the floor, or a different colour. These open timed doors, which may be in the same room or elsewhere in the level.

These rooms will get you accustomed to the kind of tricky jumps you'll encounter later in the game, and get you started early in thinking out the placement of your steps. Heads up though, you will probably die multiple times in the process and need to restart the level each time!

Note that there are secret rooms in this level with health potions, hidden above collapsing tiles in the ceilings.

It's always worth jumping against a ceiling whenever it's within reach to test for loose tiles, which will reveal themselves with a wobbling noise and animation. Jump against a ceiling tile to loosen it, but get out of the way before



Things like Tomb Raider's walking and running jump modes, collapsing tiles, timed doors, and pressure plates, were all taken from Prince of Persia.

it drops to avoid damage.

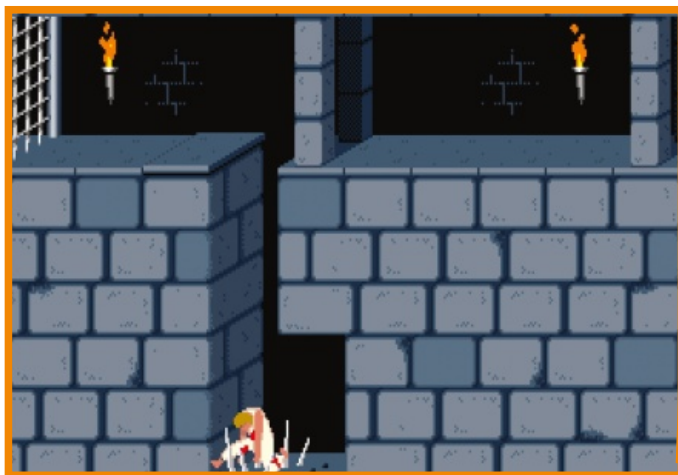
Combat

Once you have found the sword on the far left of the level, head back to the start and take on the angry guy with the sword. Be aware that your character only has a few hit points, so pay attention!

When your enemy is in striking distance, your character should draw his sword automatically, but press **Action** if not. Pressing **Action** will strike at your enemy. To block (or "parry") an attack, press **Action** and **Up** simultaneously, or possibly **Jump**, if you're playing a console version.

If you press **Down**, you will put away your sword, allowing normal movement again. But remember, if your enemy is in striking distance, one strike without your sword drawn will kill you.

From here on in, these should be enough instructions for you to work out the rest of the game. Good luck. 🍀



This is how most retro gaming montages with the Prince end: a pointless death in the first spike pit.



The SNES version, for better or worse, has different level designs to the original. They're generally flashier and elongated.

TONKA GOBOTS - SUPER LEADER 1

- Were the GoBots up to the challenge?

All friendly GoBots hail the fearless Leader-1, the leader of the Security Force. Leader-1 is as brave and intelligent as they come. He has an arsenal of weapons in store for Cy-Kill's evil gang.

Much like the original *Transformers* line (now known as Generation One), *GoBots* also owe their origins to an earlier line of ingenious transforming toys. Designed in Japan and released by Bandai in 1983, they originally went under the more steely and robust moniker of *Machine Robo*; in Europe they were known as *Robo Machine* and in Australia Machine Men. Before his appearance as a GoBot, *Leader-1's* Australian name was F-15 Man whilst in Europe he was called F-15 Eagle.

So it was that Japan's Eagle Robo would be re-christened as Leader-1 when Tonka rebranded the line as *GoBots* for their US distribution, so as to avail themselves of the inevitable sales buoy stemming from syndication of the *Challenge of the GoBots* cartoon, produced by the legendary Hanna Barbera animation studio.

Super Leader-1 The Toy

Initial releases of Leader-1 were only 10.1cm and it wasn't until towards the end of the *GoBots* line that Tonka released the ultimate version and the subject of our review - the 18cm Super GoBots Leader-1.

Although larger, the transformation is the same as its smaller counterpart except for the addition of extendable die-cast undercarriage wheels. Super Leader-1 weighs 153g and is composed of durable



The Super Leader-1 box.

grey plastic and evidences an extensive use of die-cast parts throughout. The arms rotate on die-cast ratchets that have a slight spring to them. In addition, a little side to side arm movement is possible as well as some up and down shoulder movement. The rounded head is immobile with some light detailing on top, striking gold painted eyes and a pentagonal face grill. Surprisingly the entire chest section is also composed entirely of die-cast as are the legs and waist which are painted a shiny black. The lower legs, wings and tail section are made of thick plastic. The rear wings act as stabilizers that counter the weight of the die-cast parts in robot mode - to prevent the figure from falling over. There are tiny plastic nubs that prevent the rear wings from extending beyond a fixed point which do look like something that may be prone to breakages.

In jet mode, which is based on the famous F-15 jet fighter, much like the Seeker jets in *Transformers* were, Super Leader-1 cuts an elegant streamlined figure. On our review model one of the wings is floppy and tends to tilt downwards under its own weight. This is a somewhat common and easily fixable issue. Sadly the cockpit does not open. Typically for an 80s toy the rear booster engines are chromed in silver. The undercarriage wheels lock into place allowing for smooth rolling on a flat surface whilst the US Air Force sticker set that came in pack, betrays its real world origins.

By modern standards *Transformer* Generation One toys may not appear to have complex transformations, yet for their time those transformations were quite advanced, even cutting edge. However the same cannot be said for *GoBots*, because as puzzling as their transformations were... ahem... child's play, Super Leader-1 can be readily transformed in approximately fifteen seconds without the need to refer to a manual. Fold the nose cone back to reveal his head, slide the rear fuselage section down to reveal his legs, fold back the main wings, rotate the rear stabilizing wings and pull the arms in an outward and down motion and eh voila!

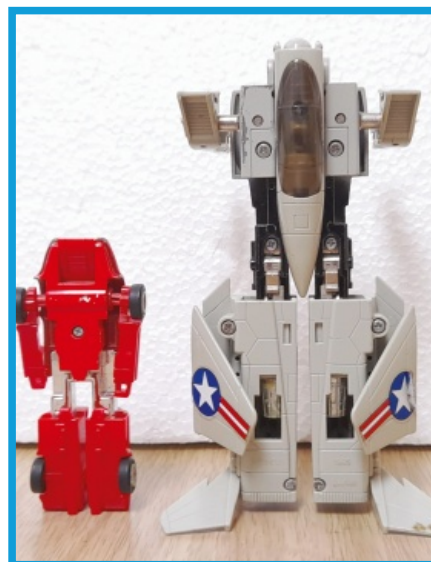
Super Leader-1 The Character

Much like Optimus Prime, Leader-1 cared a great deal about his people and it was his firm belief that no one person should rule but instead a society should adhere to a democratic rule of law. Withstanding the obvious flight capabilities Leader-1 can also emit energy blasts from his fists and project a powerful force field as seen in episode 1 of the cartoon when he shields himself, Scooter (voiced by Frank Welker who famously voiced Megatron alongside Peter Cullen's Optimus Prime in *Transformers*), the injured Turbo and their newfound human friends from the evil Renegades. Use of this force field however rapidly drains Leader-1's power reserves. Additionally Leader-1 occasionally makes use of a Power-Suit which increases both his speed and strength.

Leader-1 was the brave and beloved leader of the Guardians and was voiced by Lou Richards in the animated *Challenge*



Super GoBots Leader-1 and his brave little buddy Turbo.



A rare, rear shot.



"Operation Hoax" book by Western Publishing Company 1985.

of the GoBots series which first aired on September 8th 1984. In total the series ran for two seasons and 65 episodes, paving the way for 1986's cinematic outing *GoBots: Battle of the Rock Lords*, which incidentally Peter Cullen also did voice work for. Due to the hectic production schedule, oddly, the episodes aired out of continuity with many glaring narrative errors present. *Mission GoBotron* then serves as the season finale and this at least segues nicely into the opening sequences of the aforementioned *Battle of the Rock Lords*.

GoBots - The Lore

Many thousands of years ago in the Proxima System on the planet GoBotron there flourished a group of humanoid organic beings known as GoBeings.



However the fires of civil war were soon ignited by the power-mad terrorists the Renegades, under the leadership of a despotic maniac named Stron-Domez.

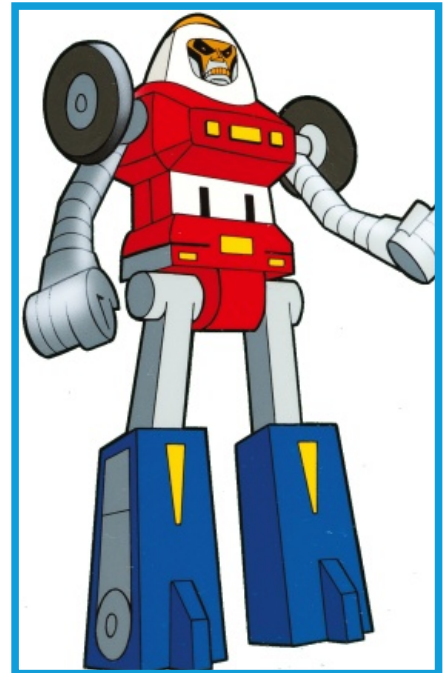
Ultimately the GoBeings were pushed to the very edge of extinction by natural disasters, the inadvertent consequences of a Renegade sabotage operation that caused an enormous asteroid to brutally collide with GoBotron. However, the GoBeings genius called Ex-El, the last engineer, used his cutting edge experiments to save his people; thus transferring their essences into cybernetic GoRobotic Machine Men or GoBots. In fact it was their origins as GoBeings that accounted for the presence of female characters such as Crasher.

By then being passed through a wonder machine named the Modifier, the GoBots' newly minted steel bodies were now able to transform into other vehicles. His lifesaving work done, the fabled Last Engineer now intended to retreat to a pre-prepared workshop located elsewhere in the vast reaches of the galaxy. Instead he was thwarted by the malevolent Master Renegade who stole his ship and escaped in his place. Being out of options, the Last Engineer now put himself into suspended animation far beneath the surface of GoBotron. Above however, the fires of war burned bright between the Guardians and the Renegades, who were now all wrapped in GoBot shells.

Much like *Transformers* fiction then, the *GoBots* featured two opposing factions of transforming robots stuck in perennial battle. The GoBots originated on the metallic Planet of GoBotron which indeed sounds awfully similar to the *Transformers* home-world of Cybertron. GoBotron had eight moons.

And it was this war that eventually spilled over into 20th century Earth with the prideful Cy-Kill, former heroic guardian and allegiant friend of Leader-1 now battling for domination of both earth and GoBotron against his once former teammates.

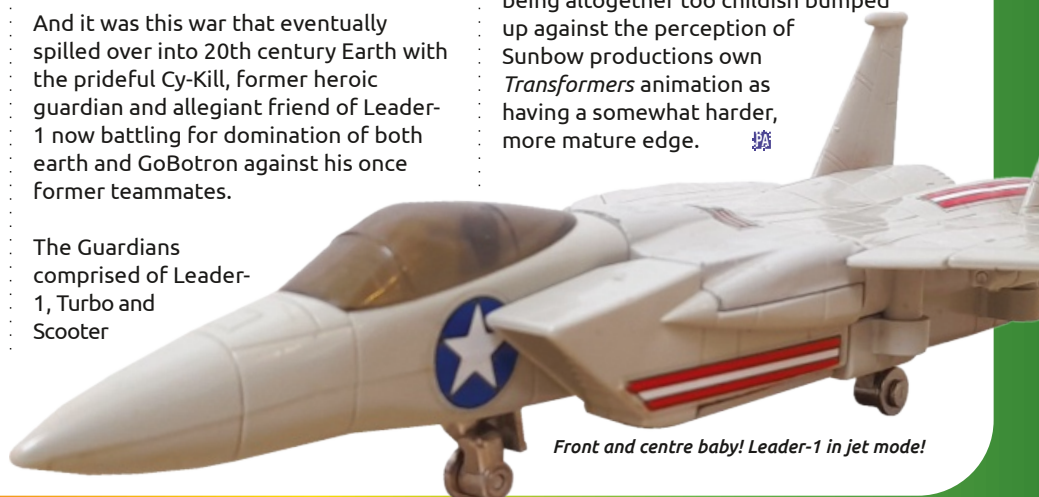
The Guardians comprised of Leader-1, Turbo and Scooter



Leader-1's nemesis Cy-Kill in animated form.

with the evil Renegades led by Cy-Kill (yes Cy-Kill's a motorcycle hence the pun) comprising of Cop-Tur and Crasher. Interestingly neither group bore distinguishing insignias of any kind, and guns rarely made an appearance, instead the characters emitted energy blasts from their fists; something the brash and brave Turbo was quite partial to, certainly if episode one is any indication. Other characters simply appeared as guest stars, rotating in and out of episodes as necessary.

Upon launch, sales of the *GoBots* were very strong, yet over time these dwindled due to the toys' more rudimentary transformations, especially when compared to their main competitor Hasbro's *Transformers*. Additionally the perception of the animated series as being altogether too childish bumped up against the perception of Sunbow productions own *Transformers* animation as having a somewhat harder, more mature edge.



Front and centre baby! Leader-1 in jet mode!

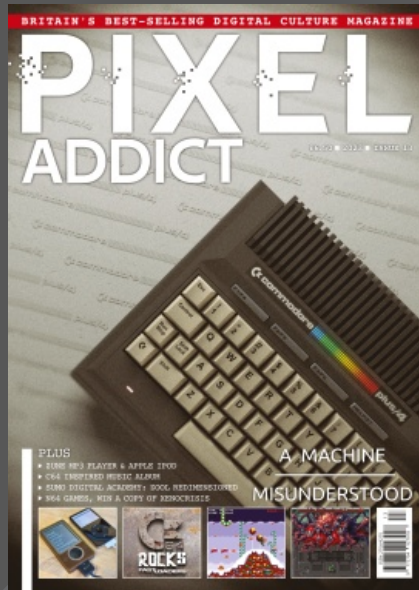
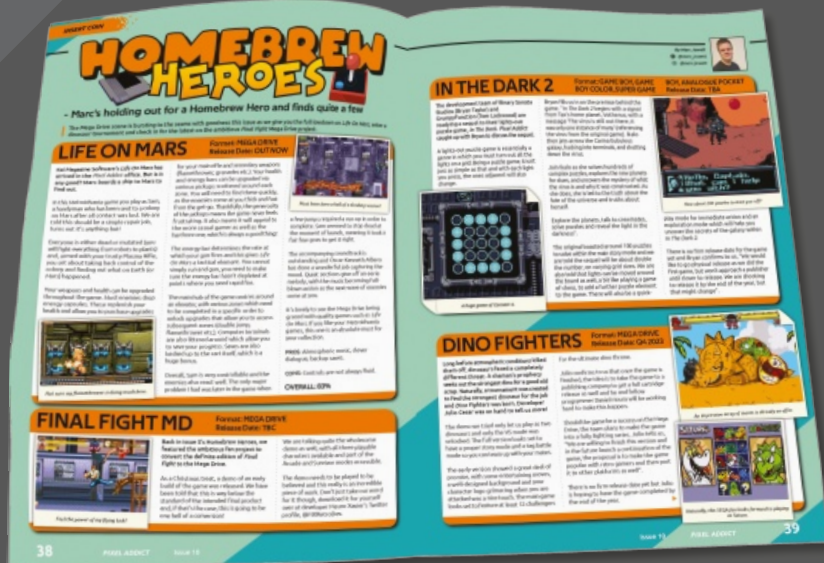


WRITERS WANTED

SEE YOUR ARTICLE IN NEWSAGENTS



We're looking for contributors to write for **PIXEL ADDICT**
- the digital culture magazine for classic computing
and retro gaming enthusiasts.



INTERESTED? THEN EMAIL
PIXEL@ADDICT.MEDIA

WOULD YOU LIKE RETRO GAMERS AND
CLASSIC COMPUTER USERS TO BE AWARE
OF YOUR PRODUCT OR SERVICE?

PIXEL

ADDICT

WE OFFER FULL PAGE, HALF PAGE & QUARTER PAGE
ADVERTISING OPPORTUNITIES.

IF YOUR ADVERTISEMENT IS SPECIFICALLY
RELATED TO VINTAGE TECH, IT WILL
QUALIFY FOR A HALF PRICE DISCOUNT!

REDUCED RATES ARE ALSO
AVAILABLE FOR REPEAT
ADVERTISING. TERMS APPLY.

EMAIL US NOW: ADVERTISING@ADDICT.MEDIA



RETRO EZ

The Amiga Retro Resource

www.retroez.com

a new community focused online store!

The BUFFEE Amiga Accelerator

for the A500, A1000 & A2000
May fit other models with 3rd party adaptors
The world's most affordable speed & RAM upgrade for your computer!

EXCLUSIVE UK RESELLER

ORDER NOW!

NEW!

Quad Manual Kickstart ROM Switcher

for the A600
1.3, 3.1, 3.X & 3.2 official license keys included
Designed for maximum compatibility with 3rd party upgrades!*

In Stock!
NEXT DAY
Delivery Available

FULL RETAIL VERSION
of Amiga OS 3.2
INCLUDED!

*Subject to manufacturing times and product testing
**Achieved via Manual Switching, to avoid conflict with Soft-Reset used on other cards
***Product image is a Beta unit. Customers will receive a fully completed retail version

PIXEL HEAVEN PREAMBLE

- And how Poland left an impression

By Simon Butler

www.dinosaur-pie.co.uk

[dinosaur1957](#)



I thought I'd go outside my comfort zone and write something that wasn't confrontational or argumentative for a change (Ed. - "Wait, what's happening?!?")

By the time this issue hits the shelves on the high streets, I will have attended and returned from the annual Pixel Heaven Games and Pop Culture Festival in Warsaw on 26th-28th May 2023, but I thought I'd ruminate on this and related matters as it's been preying on my mind.

The main reason for my mental agitation is that I am due to give a talk on the following Saturday (3rd June) regarding my life in games and my love for the humble pixel.

It's now Sunday the 21st of May and I have yet to even begin to write so much as a sentence on this related topic, but as people have reminded me, I've never been stuck for something to say given half a chance, so I suppose I can wing it.

Nevertheless, I am looking forward to the forthcoming five days of game-related tomfoolery. I attended for the first time three years ago and was most impressed and quite astounded at the passion for the ZX Spectrum so far afield.

On top of that the organisation was top notch with only one minor hiccup; a torrential downpour during the first night caused a small part of one of the halls to get somewhat soggy, to put it mildly, but nothing could dampen the spirits of all involved and matters continued unabated.

There was a fantastic turnout of Polish retro-heads and a gaggle of the UK's biggest names attending to speak on all manner of gaming topics. Mr. Gary Bracey was there along with Ian Livingstone, David Pleasance, Jim Bagley and many more.

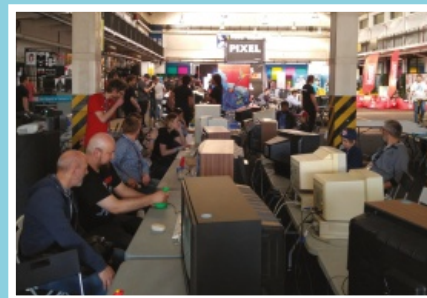


We hope taking this picture didn't break the Pong player's concentration.

I had been called upon to do a Q&A session and was then roped into a group talk later that same day. All in all, it was a whirlwind of excitement and activity and thoroughly enjoyable throughout.

As mentioned earlier I was quite taken aback at the sheer volume of Spectrums on display with games from back in the mists of time. When I questioned one of the organisers about this, it was explained that the Spectrum was not always readily available during its heyday, but boards and bits and pieces of Spectrums would find their way into Poland which was at the time under Communist rule. I was rocked back on my heels when told that games rarely, if ever, arrived with their original packaging and were almost always on cassettes with no instructions and were in a language most gamers did not understand at that time.

Gaming was a matter of trial and error, and knowing this made me see their passion in an even greater light. They had stumbled in the darkness, playing games they did not understand on cannibalised machines they were not supposed to have, and this obviously engendered a deep and enduring love for something that until that point I had always considered quintessentially British. The event seemed to fly by and I was



Like so many conventions there is a chance to try out some old hardware.

saddened to finally leave, but looked forward to my return the following year.

Little did we know that Covid was lurking under the bed sheets, so my invitation was held over until 2022, but again matters conspired to force me to cancel. Happily, as stated at the beginning of this rambling stream of consciousness, I now only have four days before I must drag my ageing bones out of bed at two in the morning to get to John Lennon Airport and fly out to Warsaw.

Having followed the event on-line since my first visit, I have seen it grow in size and success and am quite giddy with excitement at the prospect of attending once again. A lot of the same names will be attending from the UK so I shan't be stumbling over the language barrier too much.

I was hoping to get one of my newest ZX Spectrum Next titles out for perusal along with my tyrannical coder Mike Ware, but he's still beaver away finishing the last few lines of code, so hopefully in 2024 we will take at least two of our games out to next year's gathering.

So in closing, I will say that anyone reading this should really try to attend next year in Warsaw. You won't regret it.



Simon pictured at the last Pixel Heaven event he attended.



As mentioned there may have been a slight leak!

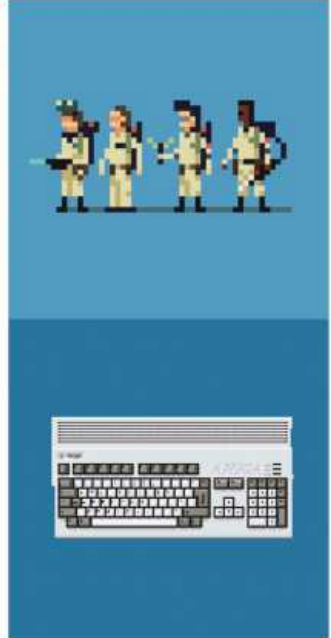


PICK UP A PIXEL!

Dinosaur Pie has a host of lo-res heroes!
TV, Movies, Music and Gaming!
Adorn your walls.
Treat your friends and family.
Framed pictures, canvases,
t-shirts and more!



<https://dinosaur-pie.co.uk/>



PIXEL ADDICT PRESENTS

Celebs & Gaming

We look back at the relationship formed between celebrities and gaming. Whether playing or endorsing, some big names have been braver than others in openly embracing video game culture!



Version 1.4 - On sale 24th August 2023

PLUS!

- Mortal Kombat movies
- Resident Evil game franchise
- Uplink (hacking game) • Haiku OS
- Alex Lee of GB/Super Action and Games-X magazines
- Handspring Visor PDA • Power Mac G4 Cube
- Sinclair ZX Spectrum • Also regulars including Homebrew Heroes & Your Points Of View!



BEWARE OF EMPTY SHELVES!

We've received at least one call previously from an emotional reader, utterly devastated that *PA* was not in stock. Don't be *that* guy! Cut this coupon out and hand it to your retailer.

Dear Newsagent, please reserve each issue of *Pixel Addict* magazine for me, commencing on 24th August (or thereabouts).

My name: _____

My address: _____





CHECKMATE 1500 PLUS

- COMPATIBLE WITH A500/A600/A1200
- COMPATIBLE WITH MICRO-ATX & MINI-ITX
- RISER LEGS & MANY EXTRAS AVAILABLE
- AVAILABLE IN OYSTER WHITE & BLACK

CHECKMATE 1500 MINI

- MINI-ITX COMPATIBLE
- MISTER FITTING KITS
- RASPBERRY PI FITTING KITS
- MANY EXTRAS AVAILABLE
- AVAILABLE IN OYSTER WHITE & BLACK

CHECKMATE MONITOR

- 17" & 19" IPS PANEL OPTION PLUS MORE TO COME
- CAN FIT SINGLE BOARD COMPUTERS INCLUDING MISTER (DE10NANO) & RASPBERRY PI RANGE
- HIGHLY MODULAR AND EXPANDABLE
- SUPPORTS MOST MODERN & RETRO INPUT REQUIREMENTS
- POWERFUL STEREO 3" SPEAKERS
- AVAILABLE IN OYSTER WHITE & BLACK



CONTACT CHECKMATE TO JOIN
2024 WAITING LIST

CHECKMATE GARAGE

- ROBUST STEEL CONSTRUCTION
- DIMENSIONS: 500 X 333 X 100 (MM)
- FOR AMIGA 500/600/1200, ATARI ST RANGE, BBC MICRO & MANY MORE!
- AVAILABLE IN OYSTER WHITE & BLACK

FOR MORE INFORMATION, PLEASE VISIT
WWW.CHECKMATE1500PLUS.COM



AVAILABLE IN EUROPE, FROM: **DRAGONBOX.DE**
SEARCH FOR "CHECKMATE"



PROUD TO SUPPORT
PIXEL ADDICT

we buy
PHONES
for **CASH**



SELL WITH CONFIDENCE

webuy.com

